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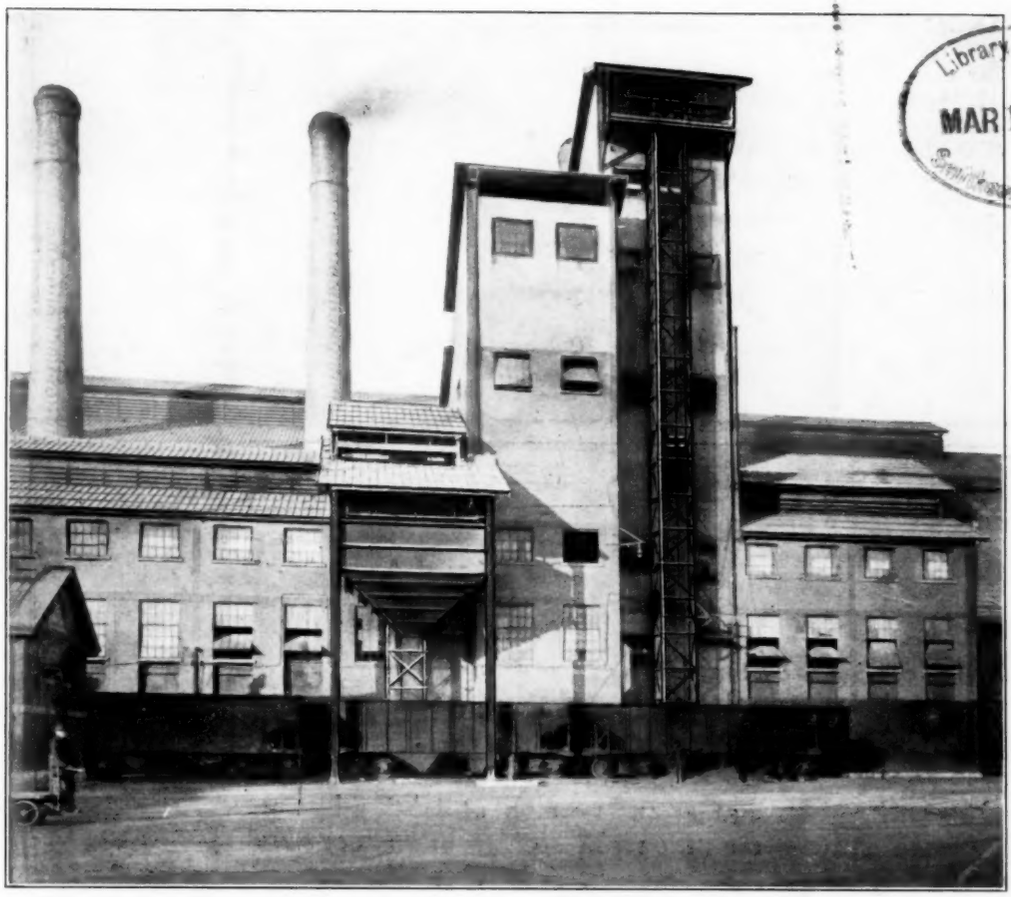

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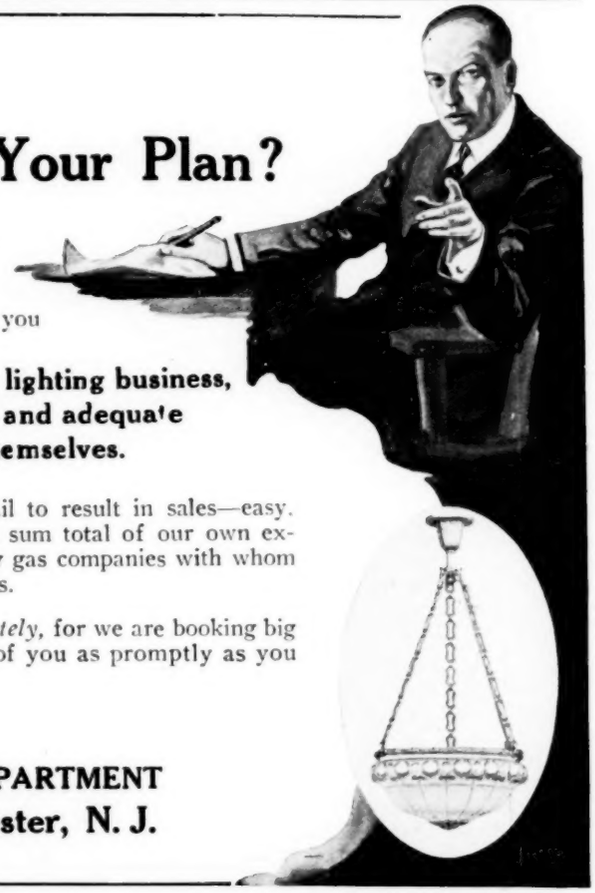

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Fire Insurance in a Gas and Electric Company

A Study of This Important Subject

By G. H. SMITH
Gas Engineer, United Hudson Electric Corporation, Poughkeepsie, N. Y.

The question of fire insurance in a gas and electric company is one which is very much before managements of those industries to-day. There has been considerable discussion bearing particularly on the amount of premiums and the amount of resources and the ratios between them. Several companies have already made studies of this important subject and it is now an open question before the industry which should be brought to a conclusion as soon as possible through some medium as a committee on this subject representing the gas and electric industries of this country. There are several million dollars involved in premiums paid for utility fire insurance and the amount is sufficient to call for the attention of our most skilled engineers and insurance representatives.

Too long has the important matter of the proper protection of mortgages, security holders and the public by the placing of adequate and fair fire insurance in public utilities been left to the discretion of some auditor or insurance representatives of the companies who gives much thought to the proper amount to carry and little thought to a study of the advantages of better construction or protection, or perhaps a reconsideration of the entire basis of fixing rates for premiums by the underwriters themselves, to the end that the experience as indicated by years of operation will show the necessity of a lowering of those rates in gas and electric companies, commensurate with the records for fire losses those companies are able to show. It is gratifying to note that the gas industry through a committee on fire insurance statistics are about to take up this work through the medium of the American Gas Association and it is to be hoped that this committee will be given the earnest support of the industry.

There has been considerable discussion of late on the subject of inflated values Public utilities as well as other industries have suddenly awakened to the proposition that the cost of replacing damaged property is in many cases twice what it was four years ago. This condition has made necessary a detailed analysis of the values of insurable property and a consideration of the proper amount of insurance to carry in order to properly safeguard those who are interested in this important subject.

The study of Fire Insurance which Mr. Smith makes is particularly timely just now. The thoroughness with which the subject is handled makes it doubly valuable.—Editor.

Many utilities companies have given careful study to the values of the properties over which they have supervision and have been more or less at a quandary as to the proper protection that should be received. The proposition of carrying insurance on inflated values is one requiring careful consideration because of the very much increased premiums necessary and in the case of coinsurance the constant revision of values that it necessitates in a fluctuating market.

The problem before the industry to-day has two angles from which it should be viewed. First, what is considered adequate protection for a utility company? Second, what shall be done to get a better rating in premiums for the fire loss experience gas and electric companies show?

In order to arrive at the proper answer to the first question it will be necessary to make a study of the values of all insurable property and set up such an analysis as will set forth the comparison of premiums under different classes of insurance; such an analysis was made by our company and the method, findings and conclusions are herewith set forth.

Reasons for Study

This investigation of our fire insurance coverage and the consideration of the protection we were maintaining was brought about by the very much increased cost of replacing damaged property. Many

of us were of the opinion that were we to suffer any considerable damage to any portion of our property that the insurance we carried based on values of three years ago would be totally inadequate to cover us for the losses with the present day cost of reconstruction.

Most of our property was protected by insurance of the co-insurance class. This class of insurance precludes that if it is the intention of the insurer to replace damaged property that in order to secure such funds he must carry insurance equal to 80 per cent of the present-day value of the property.

A great deal of comment occurred in newspapers. Banks and loaners of money spread the alarm to increase fire insurance to cover present day reconstruction costs in order to protect their interests in the properties concerned.

Charts and tables were given to indicate the operation of the co-insurance clause and in a great many cases where adequate insurance was not carried the insured suffered large losses without total reimbursement.

With these warnings before us we immediately made a study and investigation of our own fire insurance conditions and we want to make this point clear that in this study we have considered carefully the carrying of fire insurance from the public utility point of view which gives consideration not only to the amount of recovery in case of fire, but also the protection of the mortgagees and security holders of the property and further the loss of service and the loss of good-will of the public that would occur from the loss of any part of our property. It is impossible, of course, to insure against the latter, as there is no consideration given to it in the adjustment of the loss, but it can be given consideration by properly protecting our plants with duplicate equipment and installing therein proper fire fighting apparatus. Obsolescence and the fact that property damaged would not be replaced in its original form also has a large bearing in considering insurance from the angle of the gas and electric industry, and further, the regulation of our business by a commission that recognizes only the book value of the property in rate making considerations leads us to view the fire insurance problem from the standpoint of being reimbursed in case of a loss for only the book value of such loss and recapitalizing the difference between book value and replacement value to reconstruct with the recognized privilege of earning a fixed return on the recapitalization.

Co-insurance Explained

In most fire insurance policies there is included the following clause:

"The insurance company shall not be liable for a greater proportion of any loss or damage to property described herein than the sum hereby insured bears to 80 per cent of the actual cash value of the said property at the time such loss shall happen."

This clause is designed to allow the insurance company to write large amounts of insurance and to do away with the carrying of a flat insurance of small amount based on what might be considered a normal fire loss.

The clause means that the insurance company is liable for any loss up to the face of the policy providing the insured has taken out insurance up to 80 per cent of the cash value of the property at the time of loss. If the insured has not insured up to 80 per cent of the cash value of the property then the insurance company will only pay a fraction of any loss total or partial, which fraction is determined by the ratio of the amount of the policy over 80 per cent of the cash value of the property.

An example of the operation of this clause is shown by the following:

100 per cent value of property	$20,000
80 per cent value, amount of insurance carried as required by the clause	16,000
Damage by fire	8,000
Insurance company pays full amount of loss	8,000

Another example, using the same basis of cash value:

100 per cent value	$20,000
80 per cent value, amount required by the clause	16,000
Insurance carried, half of required amount	8,000
Damage by fire	8,000
Insurance company pays half loss	4,000
Insured loses one-half, equivalent to one-half the amount carried by himself	4,000

It will be noted from this example that because the insured was not covered for 80 per cent of the cash value of the property in the second case he only collected in losses that proportion as determined by the ratio of the insurance he did carry, divided by 80 per cent of the cash value of the property, which in this case was half of the loss.

Establishment of Values

In order to investigate the operation of the clause in our case we were obliged to ascertain the following values on each piece of property:

1. Book value.
2. Replacement value.
3. Replacement value less depreciation.

The book value as we determined it was only the value of damageable property. The value of foundations and subsurface structures were deducted from the values. In cases of oil tanks the retaining walls were deducted and in enclosed holders with underground tanks the value of the tanks were deducted.

The book values used were those taken from approved appraisal of the properties with additions or retirements therefrom to the present time. Each building and its contents were analyzed in this way and book values established.

To these book values we added from 15 to 110 per cent for increased values of the present day. This gave us very closely the replacement value of the property. The percentages used were obtained by a review of reconstruction costs and were established and checked by conference and correspondence with manufacturers of building materials and equipment and further checked by reviews in periodicals on rising costs.

From the replacement cost we subtracted a proper percentage for depreciation. These percentages were established from a knowledge of the life of buildings and equipment and with due consideration for the

(*Continued on page* 228.)

The Service Charge

A Fair Way to Arrive at an Equitable Figure

By A. PARSHALL

Consulting Engineer, Rochester Gas & Electric Company

The public always and regulatory authority more recently has shown great interest in the rates charged by public utility corporations for service which they render, and I may add that managers of such corporations have shown like interest in the rates and profits derived therefrom, with a view to their ultimate distribution to the owner or creditor through the dividend or interest route.

During the present high-priced era prices charged for service are matters of deep concern to the consumer, and charges and methods of charge are more apt to be closely scrutinized than when costs and prices are on a lower level.

There is always a great deal of discussion taking place regarding the service charge. Here is an outline of one way of arriving at a figure. It is well worth perusal by any gas company man.
—Editor.

For convenience and simplicity it is proposed to discuss the subject of this paper from the standpoint of a company furnishing gas, although service charge may be considered with equal interest or profit by electric and other utility corporations.

A gas corporation in this State is declared affected with the public interest, and as such its rates and schedules are subject to regulation. Nevertheless, when private capital is devoted to public service, it is entitled to at least a reasonable rate of return in the circumstances, and such reasonable rate of return is derived from the rates and schedules, which rates and schedules must not be unduly preferential or illegally discriminatory.

Cost is a function of the rate and consumers and classes of consumers who receive service under varying conditions will cause a varying cost to the company furnishing the service and, generally speaking, each consumer or class of consumers may be expected to pay as near as may be its fair proportion of costs and a reasonable profit to the furnisher of the service.

We are all familiar with various methods of charge such as fixed payments, uniform price, lock and step schedules, two-rates, three-rates, minimum bills, etc., devised to produce in the aggregate a fair profit and a charge not in excess of the value of the service rendered.

It is suggested that a service charge, in addition to a charge for quantity of gas consumed, would be a legal or justifiable method of billing for gas service from the standpoint of equity and stimulation of demand or use so that the best interests of the community and corporation would be served.

In suggesting the adoption of a service charge as a separate charge or part of a consumer's bill for gas service, we do so under the assumption that there is no legal objection to such practice. The matter has been passed upon by courts and commissions and from our reading of the several cases that have come to our attention it is concluded that such method of charge would not be repugnant to the regulatory authorities nor to the courts in case of litigation thereon.

It appears to us that a service charge can be reasonable, based upon the fact that there are certain definite expenses incurred by a gas corporation in making its service available to the consumer, irrespective of the quantity of gas consumed or recorded by the meter, and that such costs and expenses incurred for each customer or class of customers should be borne by them.

The gas corporation is in business for profit. Its money is obtained from two sources: (1) Through the issuance of stock and the incurring of obligations, the proceeds of which are invested in plant and facilities; (2) for the use of such plant and facilities and the rendering of service. The money obtained from the first source is capital and must be conserved; the money obtained from the second source must be sufficient to pay all costs of operation, maintain the capital and enable the corporation to distribute a fair return to the investors.

Basis for Rates

It is obvious, therefore, that our rate schedules and our methods of charge must be such as will bring, in the aggregate, operating costs and profits, and if the burden is to be equitably distributed, then each consumer should bear his proportion of both costs and profits. To each such an ideal would require a system of rates and charge or rate differential so complex as to be wholly impracticable. We therefore must compromise on a more simple method of charge that will substantially comply with the rule that we must avoid undue preference.

(*Continued on page* 234.)

Industrial Uses of Gas

Advancement That Is Being Made

GAS IN HOTEL KITCHENS AND RESTAURANTS IN BOSTON

By L. T. Joyce, Boston

During the last three and a half years, gas has generally replaced coal in Boston hotels. Prior to that time our experience in securing its use was most disheartening. Whenever a hotel proprietor was approached, our proposition was turned down at once, because, as the hotel men said, of its great cost as compared with other fuel. Another reason was that the chefs would not use it. This last objection was founded, as in almost every case the chef antagonized us from the first. His statement was that gas was not a practical fuel and for that reason he would not use it.

Under the general subject of "Industrial Uses of Gas" four papers were presented at the annual meeting of the New England Association of Gas Engineers. Because of the general interest in these subjects at the present time these papers are printed in these columns, they warrant careful study.—Editor.

In the first gas kitchen that we equipped with hotel ranges they still retained about half the installation on coal. Mr. Smith, who was then one of the proprietors of the Hotel Hayward, was the first man in Boston who had courage enough to make a trial on gas hotel ranges. The chef objected most strenuously at first, but he afterwards came into line and said that for many things it was superior to coal. Mr. Smith from that time to the present day has been a consistent friend and user of gas in his business, and at the present time is conducting a very large restaurant in Boston, and has an entire gas equipment in his kitchen.

Our first entire gas kitchen was installed at the Hotel Victoria in January of 1917. The chef there seemed to be willing at least to give the thing a trial. Mr. Page, who was then managing the house, having seen installations in New York and in some institutions here, was inclined to think he might make it go. This installation was made and proved successful from the first. The kitchen crew, as we expected, was not friendly, but after a week or two when they began to realize that their work was made easier, they began to think there was something in the gas kitchen. A little later, I do not believe you could get the chefs to take it out.

We then went after the proprietors of the hotels. We were at that time threatened with a coal shortage, which afterward became a real fact. They came into line, one by one; and to-day, we have in Boston, wholly equipped with gas, twenty-six hotels and institutions and thirty-one large restaurants.

Our argument with the hotel owner was that we could give him more reliable service and a sanitary kitchen that would be cooler in summer. We could eliminate the noisy activities in the kitchen in the early morning hours, which disturbed the sleep of the guests. During the day when the fires were not being used, they could be turned out, whereas if they were using coal fires, they would have to be retained. The storage of coal in the kitchen was another important factor, as was also the removal of ashes. Repairs for gas ranges are from 20 to 40 per cent less than coal.

Strange to say, we had very few complaints of high bills, as everyone seemed perfectly willing to pay for gas in the kitchen when they saw the results they could obtain.

Advise Daily Meter Readings

In all cases where installations have been made, we advised the daily reading of the meter; having some reliable person, such as the steward or the engineer, take this reading at the same hour each day. If there was any unusual increase in consumption this could be accounted for then and not wait until the month had passed. We found that this worked very well. I would like here to cite a case where I believe this method saved the business for us. One of the hotels where the installation had been made, had changed hands, and a new kitchen crew was taken on. After the first bill, we got a letter from the proprietor, saying that if this was the best that we could do with gas, he intended to take the gas kitchen out and replace it with coal. I might add here that this bill was just about double what it was formerly, with the old crew operating the ranges. I went up and saw this man and talked with him and urged him to have the daily reading of the meter made. This was done and the second month they had their bills back to normal. This installation is still in operation and giving satisfaction.

We made no claims to the hotel proprietors that gas would be cheaper than coal, but we did tell them that we believed that with careful operation, gas

could be used as cheaply as coal, everything considered. This has been proven in installations where proprietors have informed us that gas is costing them no more than coal, and that their service was better. Of course we have installations where gas is costing more than coal, in one case nearly twice as much. In reply to my question as to whether this man would care to go back to coal again, he said that not under any circumstance did he believe he would use coal in his kitchen again.

One of our installations was that of the Hotel Touraine. This installation consists of nine sections, with three eighteen-inch spreader plates, which gives them more surface to slide their pans and utensils above. After these ranges are in operation these spreader plates become hot and you can keep food hot on them. There is also one large roast oven and one fifty-inch broiler. The chef and his assistants in the kitchen are most enthusiastic over these gas ranges, which have now been installed for over two years (July, 1918). In talking with the management the other day, I was informed that they did not believe that their gas had cost them any more than coal, and they were very willing to say that their service was much more reliable than formerly. I tried to get some figures relative to actual cost, but they did not care to give them out. They serve from 1,000 to 1,200 meals a day in this hotel. They have service at any hour of the day or night. The man who formerly looked after the fires is able to do something else, and they have bettered their service generally. They further told me that if coal was back at the old price they would not use coal as a fuel. And this opinion seems to be general among the hotel owners in Boston.

Change in Ten Years

It may be interesting to note that ten years ago in our endeavor to get gas installations made in Boston hotels, we offered to put an installation free in this very same hotel under this very same management, if they would use gas, but could not get the proposition accepted.

We have a maintenance system which provides for periodical calls at the hotels. This service was formerly given free of charge, except that hotel owners had to pay for cost of parts, but labor was furnished free. We now make a charge for all service rendered, and many of the houses have taken advantage of this. The usual maintenance contract for first class hotels provides a call of four hours each two weeks, costing $96 a year.

We have had success in our installations in hospitals and institutions from the first, and to-day we have, I think, all of the large hospitals and many of the smaller ones equipped with gas, and the hospital superintendents all agree that gas is the ideal fuel.

In Boston, where restaurants were formerly equipped with coal and very little gas, this condition has changed materially, for practically all of our large restaurants are now using gas entirely. We have one chain of restaurants where three years ago coal was the fuel used by them almost entirely, but after making an installation for one of their restaurants, we have changed all of their stores in Boston, which number eight, and the management is perfectly satisfied with the results obtained.

There are still two or three hotels in Boston that are not using gas, but we hope to bring them into line.

I regret that I have not been able to get the data covering the costs of service with gas in hotels, but formerly when we had gone into this somewhat we found that conditions were so very different in the various houses that results were entirely different in every case. Sufficient to say, however, that I do not believe we have one hotel that is dissatisfied with the gas installation in its kitchen. With intelligent operation of hotel ranges, there is no good reason in my mind why gas cannot be made as cheap a fuel as coal and at the same time give much more satisfactory results.

GAS-FIRED FURNACES FOR HEAT TREATING

By P. J. Lafore, Boston

I will first speak about an installation we made converting general heat-treating furnaces from oil to gas. The increase in the price of fuel oil and its poor and varied quality has made it possible for us to replace oil-fired furnaces with gas, and show a saving in fuel cost, in addition to turning out better and cleaner work, greater production, and a saving in repairs and in tubes and pots on annealing and carbonizing work.

A typical installation of this kind was one that we put in at the New England Annealing & Tool Company. This company does general steel heat-treating work and has the following furnaces:

First—One double-chamber annealing furnace, one chamber of which is 20 ft. long, 4 ft. wide, 1 ft. 6 in. high to spring of arch, and the other chamber 16 ft. long, with the other measurements the same as the 20-ft. side. The furnace is built of fire brick, without insulation, and has 18-in. side walls, 27-in. walls between chamber, and a 9-in. roof. It is of the overfired type, the heat passing under the arch down through checkerwork in the floor and out a flue which runs lengthwise of the furnace in the wall on the burner side.

The 20-ft. chamber formerly had six oil burners and the 16-ft. chamber five. These furnaces operate at about 1,450 to 1,650 deg. Fahr., the charge in the 20-ft. side being approximately five tons and on the 16-ft. side four tons.

Second—Two hardening furnaces, with inside dimensions 2 ft. 8 in. wide, 2 ft. 2 in. deep, and 10 in high from hearth to crown of the arch. The walls are of 4½-in. fire brick enclosed in a steel casing without insulation. These furnaces formerly had two oil burners placed in diagonally opposite corners, and are of the underfired oven type. They operate between 1,400 and 1,500 deg. Fahr.

Third—High-speed steel furnace, the inside dimensions of which are: 1 ft. 2 in. wide, 1 ft. 2 in. deep, and 8 in. from hearth to crown of arch. The walls are of 9-in. fire brick enclosed in a steel casing, without insulation. This furnace operates at about 2,000 to 2,350 deg. Fahr. Two oil burners were formerly used and were placed in diagonally opposite corners, and the furnace was of the underfired oven type.

Fourth—Simplex furnace, with internal dimensions 1 ft. 6 in. wide, 1 ft. 6 in. deep, and 8 in. from hearth to crown of arch. It has 4½-in. fire-brick walls enclosed in a steel casing and is without insula-

tion. Two oil burners were used in this furnace in a similar manner as the other small furnaces. It operates at 1,450 to 1,550 deg. Fahr.

Fifth—Carbonizing furnace.

When we installed the burner equipment the furnace was in such poor condition that we could not put gas burners in it. It was torn down, and the New England Annealing & Tool Company is going to build a new furnace, the inside dimensions of which will be 8 ft. long, 5 ft. wide and 2 ft. 2 in. from hearth to crown of arch. It will be constructed of fire brick, with 18-in. walls and 9-in. roof, but will not be insulated. The furnace will be of the overfired type, similar to the annealing furnace, and will have four gas burners placed on the two opposite sides. It will be used for carbonizing and general heat-treating work.

In changing over to gas we installed a high-pressure system, using a No. 1 Nash compressor, operating at 10 lb. pressure. This is a single-pipe, one-valve system, in which air is drawn in from the atmosphere at the inspirator, the proportions of air and gas always remaining constant no matter what the pressure or the consumption.

When we changed to gas we installed the gas burners in approximately the same locations as the oil burners: twelve burners were placed on the 20-ft. side and ten on the 16-ft. side of the annealing furnace, and two each on the small furnaces.

In comparing the two different fuels we find there is no comparison in the work done by them. With the gas we obtain wonderfully accurate and uniform temperature control, which results in more and better work and steel that is free from scale. The annealing tubes are also free of scale, which prolongs their life considerably. With the oil it was impossible to keep the temperature uniform, even though they gave it more attention than they now do the gas. In addition to this, the work and annealing tubes and carbonizing pots scaled very badly.

Gas Is Cheaper

We have not taken any gas readings ourselves, but the New England Annealing & Tool Company has taken very accurate readings of the gas consumed and has some data on the oil consumption. From these figures we find that gas is approximately 10 per cent cheaper than oil. The gas costs about $1.20 per 1,000 cu. ft., and the oil 16 cents a gallon. Summing up, the results are very much in favor of gas, as it is not only cheaper but the quality and quantity of the work is much better.

Another Installation

Another very interesting installation is one at the Watertown Arsenal. This also uses a high-pressure system. They have a No. 4 Nash compressor in the gun plant, supplying the gas at 10 lb. pressure to one 37-ft. gun furnace, which is of the cylindrical pit type, with tiers of burners placed all around the furnace.

Two 12-ft. gun furnaces, similar to the above, and one general heat-treating furnace approximately 12 ft. long, 5 ft. wide and 5 ft. high to crown of arch. This furnace is divided into two chambers, with removable roof, and is underfired, with the burners placed on two opposite sides.

In the hardening plant they have six cylindrical furnaces, approximately 7 ft. in diameter and 8 ft. high, that are used for heat-treating 14-in. armor piercing shells, one shell being heated at a time. The burners are placed in tiers around the furnace. These furnaces are entirely different from anything used elsewhere, and shells treated in them have broken records in Government tests. They are used for both hardening and drawing heats, and it is necessary in both cases to have different temperatures in different parts of the furnace at the same time, in addition to maintaining a perfectly constant temperature at each point. In addition to this, it is necessary to keep the nose of the shell cold on the draw, and water is continuously run through the bottom of the furnace over the nose of the shell during the heat. The furnace is divided into three zones, one above the other, with a series of burners encircling the furnace in each zone. It is possible to maintain a perfectly uniform temperature in each zone and at the same time have a difference as great as 100 deg. Cent. between the top and bottom zones, a distance of about 3 ft. In addition to these furnaces there is an armor-plate furnace of the underfired type, with burners along two opposite sides. This furnace is approximately 18 ft. long, 5 ft. wide and 18 in. high.

Some of the furnaces were installed during the war, while others have been put in since, and the work that they have done has exceeded the expectations of the Government metallurgists and engineers as well as ourselves. The gas furnaces have competed with both electricity and oil, and have shown their superiority to a very marked degree.

APPLICATION OF GAS TO PLATE AND ANGLE FURNACE

By H. Howard Smith, Industrial Engineer
Massachusetts Gas Companies

Among the many installations this past year of gas fuel for industrial purposes is one to a plate and angle furnace in a shipyard. This work for years has been done by coke and oil. All plants have tried to get away from the tremendous scale formed on the metal by these fuels. In all former furnaces of this type the flame has been permitted to come in direct contact with the metal, thus forming the objectionable scale and oftentimes burning the metal. By the application of gas to a properly constructed furnace these troubles have been largely eliminated.

At the shipyard in question several systems were considered by the management. The chief engineer of this plant was an oil enthusiast. He did not consider gas capable of the work, and when finally persuaded to consider the possibilities of this latter fuel he would only accept it when applied along oil-burning lines. The fallacy of such a procedure was apparent to us.

Accordingly, when permission was finally forthcoming we designed and constructed a furnace having inside dimensions of 36 ft. 6 in. (length) by 5 ft. 8 in. (width) and 24 in. from the floor of the furnace to the center of its arch. The furnace is of brick construction, with I-beam buck stays 5 ft. apart on each side.

The walls are 9 in. thick. There is a 2-in. dead air space between these outer walls and the silica-

brick inner lining. The entire furnace is lined with silica brick. The floor is of this material, laid on end and imbedded in No. 33 Johns-Manville high-temperature cement. This lining has great heat-resisting powers and long-wearing qualities. Without it the intense flames would soon burn through the arch.

There are 24-in. vents at the bottom of the side walls. No vents are placed in the arch. This form of construction pulls the heat to the bottom of the furnace. In this way maximum heat is produced from the fuel burned and radiated onto the metal.

The openings in the side walls through which the nozzles were placed were each 6 in. in diameter. The nozzles were 4 in. in diameter. These openings were purposely made large so as to keep the nozzles cool and prevent their burning. Each nozzle projects through its opening but three-quarters of an inch. All burner openings were flared on the sides and upper part so as to direct the flames along the top of the furnace arch. By staggering the nozzles on either side the whole of the furnace is a complete glow when brought to its full heat. There are absolutely no black spots. The heat is radiated onto plates and angles so that the flames do not at any time come in contact with the metal.

This production of true radiated heat at a temperature of 1,400 to 1,800 deg., with entire absence of direct flame contact, leaves the material clean and clear, with very little scale.

After the furnace has been lighted for fifteen minutes steel angles 30 ft. long, 4 in. wide and ½ in. thick are fully heated in six minutes. Plates that are 20 ft. long, 5 ft. wide and ⅝ in. thick are ready in twenty-one minutes. Material is then brought from the furnace and bent into shape. After cooling it is punched and made ready for riveting. No further heating is necessary.

Six angles are heated at the same time. Obviously only one plate at a time can be heated. The original sizes of the plates and angles are more nearly maintained than in oil or solid fuel furnaces. There is a considerable labor and time saving in the operation of this gas-fired furnace, as the burners require no attention while in use and the work is produced in shorter time. With a gas rate of approximately $1.08 per thousand, there is but a slightly higher fuel cost at the present time in comparison with these other fuels. No fuel need be kept burning when the furnace is not in use, while with oil this would be necessary. As in nearly all gas installations, the reduction in noise and a more cleanly shop is worthy of consideration.

GAS-FIRED STEAM BOILERS

By E. W. Berchtold, Boston

There are over 125 high-pressure gas-fired steam boiler plants, representing over 832 h.p., on the lines of the Boston Consolidated Gas Company today. In addition to the high-pressure steam gas-fired plants, we have ten plants, representing 56 h.p., operating under 15 lb. of steam pressure. There are numerous calls for gas-fired boilers in bottle washing, milk pasteurizing, bakeries, shoe factories, candy factories, large water-heating systems, etc.

At the E. C. Campbell Company, 240 Milk Street, Boston, the Boston Consolidated Gas Company has two of its 8-h.p. boilers connected together. These boilers supply steam at 80 lb. pressure for four 75 and one 25 gal. jacketed kettle, one glucose tank 2½x2½x5 feet, and another one 4x3x6 feet. The kettles and boiler are located on the same floor; the steam is taken through a 2½-in. steam main which runs directly over these kettles. Each kettle is connected separately with a 1-in. steam line. The returns are taken from the bottom of each kettle through steam traps. These returns run separately to a 2-in. main return to a 4½x2¾x4 Warren steam pump and receiver, the condensation then being pumped back automatically. The pump is also run from the gas steam boiler plant.

Up to about two years ago the Kane boiler was principally used throughout Boston; at that time the Boston Consolidated Gas Company undertook to design and construct a high-pressure gas-fired steam boiler. The Boston Consolidated Gas Company boiler is of the upright fire tube type; by this I mean, a vertical boiler with tubes running vertically, the heat from the burners passing up through these tubes and the water and steam are around the tubes on the inside of the shell.

Since Feb. 1, 1920, the Boston Consolidated Gas Company has sold thirty-five steam boiler plants, aggregating over 331 h.p.

These low-pressure plants were for milk pasteurizing, restaurant cooking and water heating. The high-pressure plants were for candy factories, tailor shops and for general cooking where high temperatures are desired.

It will probably be well to give a general description of the Boston Consolidated Gas Company boiler, as most of you are not familiar with its construction.

First, there is a base plate which is made of cast iron and is 3 in. high. There are openings around the side, allowing the air to pass between the floor and the plate to make the floor cool.

Second, there is the base, which is mounted on the base plate. This is also of cast iron. This base has a 22x8-in. opening with removable door. This opening is provided so that the burners may be removed with very little difficulty. At the lower edge of this base there are secondary air openings 2 in. high and 7 in. long. These secondary air openings may be closed and opened conveniently with an air-shutter ring, which is provided and fits inside the base and is adjusted for each air condition.

Third comes the boiler itself. This upright boiler has vertical tubes. It is mounted on cast iron base, the upper tube sheet, or head, as you may call it, is flanged in, and the lower head flanged out. There is an opening in the top of the base just large enough to receive the lower head of the boiler, making tight joint; therefore, it is necessary for all the heat to travel up the vertical tubes.

Fourth comes the outer casing. This casing consists of two one-eighth steel plates rolled in larger diameter than the boiler. These plates are bolted together and packed with 1-in. block magnesia. This insulation is 1 in. thick. The casing is made in sections, and is then mounted on the same base as the boiler, leaving an air space between the boiler and the casing. One-fourth of the distance up the casing from the bottom there is a flue opening provided.

Next, we have on the top head, which is flanged

in, a round baffles plate, which is practically the same diameter as the head itself. There are four legs 4 in. long attached to this baffle to hold it in place. The baffle is placed on the upper head, the top extending about 2 in. above the boiler.

Next comes the bonnet, or top, which is also of cast iron. This bonnet is cast in two pieces and is bolted together with two bolts, making it very easy to assemble and remove, as the case may be. The bonnet does not rest on the boiler; it rests entirely on the outer casing. This allows a direct fire travel from the burner up through the tubes to the top baffle plate, out under the edges of the baffle plate, over the edge of the boiler, down the space between the boiler and the casing, and out to the flue, which is located one-fourth the distance up from the bottom of the casing. A top flue connection is also provided for use in poor draft conditions, in which a damper is placed so that all or part of the flue gases can be deflected to the lower flue opening. This damper has a notch in its upper side to prevent accumulation of gas in the bonnet.

The burner used on boilers of 8 h.p. and over consists of five burner tubes on a 2-in. manifold, the end and center burner tubes each having a 1½-in. pipe opening. The second and fourth burner tubes each have two 1½-in. pipe openings or burner ports. Eac his baffled or capped to spread the flame. The consumption of this burner ranges from 600 to 1,200 ft. On the smaller type boilers under 8 h.p. an M-type burner is used.

Gas regulation is obtained by a fuel-control governor which is of the snap-action type; that is, when the steam is at the pressure the regulator is set for it shuts off the gas entirely and no more steam is made.

A pilot light is always burning. The regulator maintains a given pressure within a range of 2 lb. The old-type boiler regulator did not cut down the gas sufficiently to prevent blowing the safety valve. When steam was not being used it was necessary to turn one or more burners off by hand.

Fire Insurance in a Gas and Electric Company

(*Continued from page* 222.)

present condition of the particular property under consideration.

Having established these three values of our property we were able to set up an analysis of what it would mean to carry full 80 per cent insurance on the actual value of the property at the present day.

Method of Procedure

As an example of the method of analyzing property values for fire insurance consideration we will set up a typical analysis of a water gas plant and an electric power station.

The gas property consists of three buildings known as generator house, purifier house, and meter house, along with two gas holders, two vertical oil tanks and two horizontal oil tanks and two horizontal oil tanks.

A building record is shown in Fig. 1 and is made up for each piece of property that is insurable.

This building record not only shows construction data, but also gives some data on whether or not the building is fireproof and also information on values for taxation along with description of fire exposures.

From figures on our books as established by an appraisal and approved by the State Commission we estimated the book value of damageable property. That is the value of the property less foundations and subsurface structures.

The value analysis follows:

GAS WORKS

Structures:	
Insurable book value	$15,157.17
Replacement value	31,811.06
Replacement value less depreciation.	25,448.80
Equipment:	
Insurable book value	149,000.00
Replacement value	272,500.00
Replacement value less depreciation.	223,500.00
Holders:	
Insurable book value	39,364.00
Replacement value	135,000.00
Replacement value less depreciation.	108,000.00
Tanks:	
Insurable book value	9,350.00
Replacement value	23,375.00
Replacement value less depreciation.	18,700.00

SUMMARY

	Insurable Book Value	Replacement Value	Replacement Value Less Depreciation	Insurable Value 80 Per Cent Basis
Str'ct'rs	$15,157.17	$31,811.06	$25,448.80	$20,359.04
Holders	39,364.30	135,000.00	108,000.00	86,400.00
Tanks	9,350.00	23,375.00	18,700.00	14,960.00
Eq'pm't	149,000.00	372,500.00	223,500.00	178,800.00
	$212,871.47	$562,686.06	$375,648.80	$300,519.04

Present annual premium	$ 182.70
Present coverage	130,500.00
80 per cent co-insurance prem. on above.	451.36

The electric power station consisted of a main generator building with an old and new boiler house attached.

The building record was also made on form as shown in Fig. 2.

The value analysis follows:

ANALYSIS OF INSURANCE VALUES—ELECTRIC POWER STATION

Buildings:		
Insurable book value—		
Old buildings	$130,000	
New boiler house	54,400	
		$184,278
Replacement value—		
Old buildings	$273,000	
New boiler house	54,400	
		$327,400
Replacement less depreciation—		
Old buildings	$201,000	
New boiler house	54,400	
		$225,400

Equipment:

Insurable book value—		
Furnaces, boilers, etc....	$264,000	
New boilers	113,000	
Steam engine and turbine	272,517	
Electric generator and equipment	145,327	
Miscellaneous equipment	182,457	
		$977,301
Replacement value—		
Furnaces, boilers, etc....	$660,000	
New boilers	113,000	
Steam engines & turbines	681,292	
Electric generators and equipment	363,317	
Miscellaneous equipment	456,000	
		$2,313,609
Replacement value less depreciation—		
Furnaces, boilers, etc....	$396,000	
New boilers	113,000	
Steam engines & turbines	409,000	
Electric generator and equipment	218,000	
Miscellaneous equipment	273,000	
		$1,409,000

SUMMARY

	Insurable Book Value	Replacement Value	Replacement Less Depreciation	Insurable Value 80 Per Cent Basis
Building	$184,278	$327,400	$255,400	$204,320
Steam Equip.	272,517	681,292	409,000	327,200
Elec. Equip.	145,327	363,317	218,000	174,400
Misc. Equip.	182,457	456,000	273,000	170,400
Total	$977,301	$2,313,609	$1,409,000	$876,320

Present annual premium	$ 453.52
Present coverage	556,000.00
80 per cent premium on above.....	1,761.00

From analysis such as those shown for each piece of property we were able to establish just what it would mean to carry full 80 per cent co-insurance on the present day value of our property.

You will note in the analysis that buildings and equipment are separated in cost. This is done for the reason that different rates are applicable to different classes of property and in any analysis consideration must be given to the values under different classes when different rates apply.

Amount of Insurance to Carry (Reasons)

When all the various values of each piece of our property were established, consideration was given to the matter of which of the values we should use in writing insurance protection. Along with the book and replacement value of our property we established another value which we called an average value, which was the average between book and replacement cost.

We were not much given to the idea of increasing our insurance coverage in accordance with increasing values because it meant that we would be obliged to carry a coverage of nearly $4,000,000 against a coverage now maintained of $1,500,000. This not only would greatly increase our premiums, but also would place upon us the necessity of carrying insurance on a large inflated property value which may in the near future recede to a more normal figure. Such insurance would further necessitate a constant revision of values.

We considered further that in the expansion of our property and the continuous shifting of load conditions and also the ever changing new developments of machinery and equipment in our business and further the accumulation of abandoned plants brought about by our expansion policy, make it apparent that in case of a loss in any portion of our property it would be doubtful as to whether it would be replaced in its original form.

We considered further that the book costs as now indicated on our books represent very closely the amount of money that would be necessary to replace the property, not in its original form, but in other equipment of more modern type with which we could obtain the same utility with much less expenditure.

A statement of the values and premiums for all districts we ascertained in our consideration of the amount of insurance to carry to be as follows:

	Values	Premiums
Book	$2,806,341	$10,585
Reproduction ...	3,849,475	13,803
Average	3,329,312	12,051

It is evident from the above that there is a difference in the premiums between book cost and reproduction cost of $3,300 and between book cost and average cost of $1,500.

We have come to the conclusion that the proper amount of insurance for us to carry after all the considerations given above is a coverage that would represent book costs. We believe we should write our insurance to enable us in case of loss to recover 100 per cent of the book value of the loss.

We believe we should write insurance with a view of maintaining the integrity of our books and there should be no desire on our part to collect any amount from losses in excess of our actual investment.

The question that naturally arises on this method of placing insurance is, How would the property be replaced in case of a loss? This question we will attempt to answer. In the first place, as before stated, it is doubtful whether the property would be replaced. In the second place, our method would be somewhat as follows: We would collect 100 per cent of the book cost of the loss. To this we would add the amortization reserve on the particular piece of property destroyed. With these funds as a nucleus we would plan a new structure in keeping with the best type of building or equipment known to the art at the time of the fire and recapitalize the additional funds necessary to replace the destroyed property with modern equipment.

It is true that in the fire insurance policy that carries with it the 80 per cent co-insurance clause that it is part of the requirements of the policy that insurance shall be carried up to 80 per cent of the cash value at the time of a loss. We claim not to violate the terms of the policy by placing insurance by the book cost method because we do not wish to collect in damage anything in excess of our book cost and if we do not carry full 80 per cent of replacement value we are willing to collect for the loss only that portion

of the adjustment as would represent 100 per cent of our book cost. Let us emphasize that we must collect 100 per cent of our book cost.

An example illustrating the operation of the clause on the book cost method of coverage would be as follows:

Book cost.....	$20,000	Replacement cost	$60,000
Insurance carried.	16,000	Insurance to comply with clause ...	48,000
Loss sustained.... (Appraised on present day costs)	8,000		
Loss sustained ... (Appraised on book value) (1/3×8,000=$2,700)	2,700		
Amount paid by surance company	16,000×8,000—$2,700		
	$48,000		

It is to be noted from this example that we are obtaining all the insurance protection for which we are paying and when the adjustment is made after a loss it is based on a present day appraisal. Because we did not carry 80 per cent of the replacement value of the property we are obliged to collect only one-third of the replacement loss or that fraction of the loss as represented by the amount of insurance we did carry divided by the amount we should have carried. We are, however, going to collect one-third of the present day value of the loss which value we would be interested in were we going to replace the lost property, but in our case that amount, that would represent one-third of the present day appraisal of the loss represents 100 per cent of the book value of the loss. It is our contention that we are interested only in collecting 100 per cent of the book value of the loss and therefore we need only place insurance up to the book value and we automatically collect at least 100 per cent of the book value of any loss up to the face of the policy.

Flat-Rate Insurance

We have given considerable thought to the matter of flat-rate insurance on parts of our property which seemed to us to be good risks. The object, of course, of flat-rate insurance is to carry only what would be considered a normal fire loss.

The determination of a normal fire loss in case of fire is a wild guess at the best and it is doubtful whether any person entrusted with the handling of property worth millions of dollars, on whose judgment the mortgagee and security holders as well as the public depend, could conscientiously state what a normal fire damage would be, nor would most persons so entrusted be willing to make such determination and be held responsible.

It is further shown that flat-rate insurance carries with it such a high rate that in many cases the flat-rate premium for a small amount of coverage is in excess of the co-insurance premium for a very much larger amount. In our own case when we considered a sufficient amount of this class of insurance to cover our properties we ascertained that our premium would be about $8,500 and this would give us a coverage of $812,150. With this same premium for co-insurance we could obtain a coverage of $2,125,000.

With all things considered we abandoned the idea of flat rate insurance.

Self Insurance

Much thought has been given in the past to self insurance and there is nothing that will drive gas and electric companies to it faster than to have to pay the present high premium rates which seem out of proportion to their fire losses.

Of course, the advantage of self insurance becomes more and more apparent as a company expands and grows larger and may be of a very great advantage in a very large corporation where they can afford to set up an insurance department capable of handling all their insurance with a proper protection to those interested in the properties.

Then again, consideration has been given to mutual fire insurance with the advantages of insuring groups of companies occupied in the same business where the ratios are almost definitely established and rates can be given that would show larger saving in premiums and proper protection of property.

It would appear that the gas and electric business is now complicated enough and to a large extent insurance should be handled outside of their business were the proper rates established. Fire insurance companies are institutions of long standing and have established by experience their value in the industrial field. They are institutions highly organized and specialized for handling this form of business and it becomes apparent that there should be an advantage in this, especially to the small company where self insurance is out of the question. The large volume of business handled by these companies should make it possible to carry fire risks much more cheaply than either self insurers or mutually insured.

It would further appear that the best course to pursue in a determination of whether or not self insurance shall be established in our business is to first use our concerted efforts in lowering the present rates on fire insurance in gas and electric companies presenting our case as an industry with records of experience that would make self evident the class of risk we are entitled to. If consideration of such a demand is not forthcoming then we may give serious thought to the alternative.

New Construction

There are many gas and electric companies to-day that are paying high rates of insurance because of their lack of consideration for the proper construction of their buildings and structures. It would be of great advantage to any company to obtain from the Underwriters Association the rate "make-up" of that business and note the cost of violations. We cannot hope for better rates if a great many of us are not given proper consideration to new construction to eliminate fire risks and thus lower the fire damage experience in our business.

It is also to advantage before new buildings are constructed to submit plans to the underwriters for their suggestion on eliminating costly violations. Of course, consideration must be given to whether the

(*Continued on page* 233.)

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As the Journal Views It

Rate Increases Necessary

Although there has been a decided change in various sections of the country in the attitude that the public has assumed toward gas companies, reports received seem to indicate that political leaders continue in their blind, unthinking course. This is to be regretted, for it means that they have not yet seen the light of day that will eventually force them to do justice to our industry as a whole.

There are, of course, sections in the United States where popular opinion remains antagonistic to the gas companies, but this seems to be due to the attitude of the companies and the executives. Generally speaking, however, there is a decided improvement.

If the signs of the times are correctly interpreted, then, this widespread good-will which has been attained is going to prove of real worth within a short time. Gas companies have gone through a struggle for existence during the past few years that has sapped their vitality; and even to-day, although there has been some little relief, no company is as prosperous as it should be. All of which means that it is going to be necessary, in nine cases out of ten, to apply for a new rate within a short time. The demands that have been made on gas companies make this imperative if the industry is to meet the needs of the country. Within a short time building is going to start up with a rush, and this will provide the acid test. If companies are to be in a position to take care of this need it is necessary that they be helped now. And the only way that they can be helped is to provide new and adequate rates.

The sooner the regulatory bodies learn this the sooner they will be doing their real duty to their communities.

Costs are continuing to mount in gas manufacture and distribution, and as yet there is no end in sight. When a company has been losing money for a considerable period of time it cannot be expected to continue in business, yet gas companies are asked not only to shoulder the losses of the last few years but also to bear the burden of additional losses during the coming years. The industry needs additional revenue—in fact, it must have it if it is to survive—and it is for those who have so bitterly opposed us for their own ends to step down and help us to help the country to regain its healthy, prosperous condition. For it goes beyond our industry, and as a matter of fact has a direct bearing on the country at large. If this industry is not to be nourished and protected it will mean the breaking down of the entire industrial structure of the United States. And those who are responsible for this condition will be made to regret it in no uncertain way.

Retrenchment

The advice that gas companies retrench that comes from certain sources is superfluous, for it is that very thing that gas companies cannot do. No gas company that has been efficiently managed can retrench except at a heavy cost to its community. And we want to go on record right now as stating that the inefficiently managed company is the exception rather than the rule.

Gas companies have never had the capital with which to expand so that any deadwood in any form could be carried, nor have they been able to indulge in luxuries. It might even be said that they have been deprived of many of the necessities of existence, and yet we have large-minded gentlemen, who know nothing of the business, who are advocating retrenchment. Were it not so serious it would be farcical. The serious part of it comes from the fact that this advice emanates from sources which are in touch with capital; and capital, financiers tell us, is the most timid thing in the world. So that when this cry of retrenchment is brought up it is magnified by capital and the results are often disastrous.

At the same time that this retrenchment advice is handed out there is, on the other hand, a very positive demand for expansion on the part of the industry that it may do its part in helping to solve the housing shortage.

Perhaps it is too much to ask that these gentlemen of the gratuitous advice study our problems before spreading themselves before the world. If they will devote a few hours to a study of our needs they will quickly realize that our problems are great and that in place of cries of retrenchment we are in need of wholehearted support. If only they will try this out what a wonderful thing it will be for the industry as a whole!

Work on Consumers' Premises

The outlook for a renewal of the building program that was interrupted by the high prices is very bright and plans for new buildings are rapidly being filed, according to reports received from various sections of the country. But this action adds only another problem to those which are confronting the gas man.

There is one side of this situation, however, that deserves a great deal of thought and attention. It is the problem of work on consumers' premises. There is a wide divergence in both theory and practice throughout the country. In some sections companies make no charge for this work, while in others there has been placed in operation a schedule of prices that barely covers the cost of the work. It would seem to an unprejudiced viewpoint that this latter is the more fair. Gas companies installing service pipes, meters, etc., are called upon to make a considerable outlay of capital. Now, if, in addition to this, all of the necessary work that naturally follows is done free of cost, it would appear that the companies are bearing the entire burden, while those who benefit most are going scot-free. This may be right, but it follows naturally that the work must be paid for in some way and this has its reflection in the rate charge.

If "man is worthy of his hire," then certainly gas companies are entitled to make a service charge for work done on consumers' premises, no matter what the nature of that work. It has been the experience of many companies that the installation of a small charge for even complaint work has resulted satisfactorily for all concerned. It has a tendency to cut down the number of complaints received, and it brings home to the consumer a realization of the expense involved in the operation of a public utility. Of course, it is advisable to remit the charge where the work has been caused by some fault of the gas company. But the prepayment of a charge insures the company against loss and means that useless complaints will be eliminated. If this charge is to be made by a company this is the time to start it.

The American Gas Association is seeking certain statistics from the companies in order that this information may be on file at headquarters. Those companies which have not yet complied with this request should do so at once.

Fire Insurance in a Gas & Electric Company

(*Concluded from page 230.*)

economies of eliminating the violation outweighs the utility to be gained by retaining the violation.

In the matter of old buildings the same rate "make-up" would indicate the saving in premiums that may be effected by slight alterations. Many times considerable money will be saved in premiums by a very small expenditure in eliminating a hazard.

It is further of advantage to have periodic inspections of property by your own inspector who by means of forms so provided can make inspections for safety, and fire hazards and property maintenance in general. This inspector can easily pay the cost of his services in preventing accidents and fires and lowering as far as possible the fire loss in the industry. His great service comes not from the money saved by fire prevention, but from the loss of service of machinery vital to our consumers and loss of public good-will by interruption of service.

Conclusions

From our study of the fire insurance problem we have come to the following conclusions:

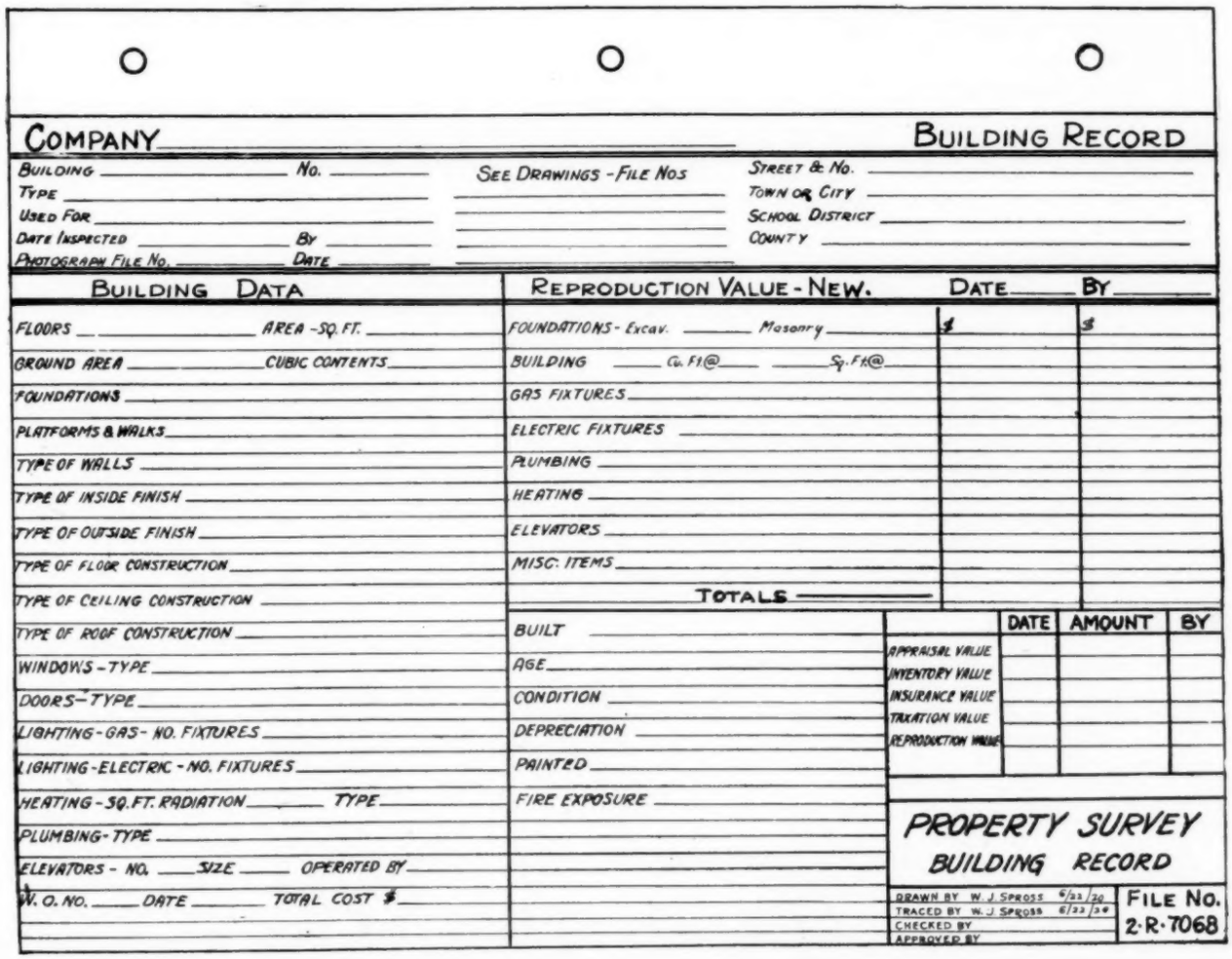
1. Co-insurance is the proper class of insurance for a gas and electric company.
2. In placing this co-insurance the book value of the property should be used.
3. All new construction should be made with a view of eliminating violation of the underwriters' code.
4. Periodic inspection of fire equipment should be made by our own inspector.
5. Gas and electric premiums are too high and should be made more equable with losses sustained as shown by experience.

Troy Rate Remains Same

Troy, N. Y.—The Public Service Commission has sustained the present rates of the Troy Gas Company. So there will be no rebate to present users. The gas company made out a strong case on cost of production and evidently the candor of its statement convinced the commission. Therefore, it will be in order to have no leaky fixtures and to refrain from stepping on the gas.

Voters May Take Over Gas Plant

La Junta, Col.—Taxpayers will vote April 5 on the proposition of the purchase of the city gas plant, at the request of directors of La Junta Industrial Association. The bonds will amount to $70,000.



The Service Charge

(*Continued from page 223.*)

In the gas business there is, generally speaking, but one commodity to dispose of and a very small turnover, in that the gross annual revenue is small in relation to the investment, and therefore it becomes necessary to consider the expenses incurred in making the investment available to the use of all of the customers and the absorption of that expense by the customers, irrespective of the quantity of gas used by such customers. In the service charge we find a vehicle for distributing these costs pro rata.

It is generally understood that those customers who employ the facilities of the company but a short period of time daily are a distinct burden to the company under the uniform meter charge and in recognition of this fact various attempts have been made to shift this burden from the company to the consumers on whom it belongs. The service charge for a gas company, together with a price for gas consumed, subject perhaps to a quantity discount to the large consumers, will substantially accomplish the result desired.

A reference to the operating expenses per se of a gas corporation will disclose the fact that a large proportion of such operating expenses are incurred without regard to the amount of gas sold and these expenses or outgoes depend almost entirely upon the total number of customers served, the extent of the distribution system required and the number of services and meters installed. That is, these expenses are caused by consumers whether much or little gas is consumed. Such expenses as are in no way varied by the quantity of gas furnished to a customer or to any group of customers and which are directly proportionate to the number of customers may be deducted from operating expenses per se and divided pro rata over the number of customers to form the service charge.

If the certain sum received by the company as a service charge is then deducted from the total revenue or aggregate amount which the company is entitled to collect from their customers in order to pay operating expenses per se and maintain the property and distribute a fair return, the balance or remainder will represent the sum that must be received in the form of a charge for gas furnished or consumed, the final result being that all customers practically will be paying their fair proportion of costs and profits for the service they receive. It is believed in such event that the best interests of both the community and the company will be served and that the fullest use of the service will be encouraged.

Service Charge Only Fair Way

It appears that an ideal service charge would comprice each customer's fair share of all operating costs to the company except production or holder cost of gas, and it becomes necessary to ascertain and separate the production or holder cost from operating costs per se. Gas companies in this State are required to keep their accounts in accordance with the Public Service Commission's classification of accounts, and under that system of accounts the total outgoes of the company are divided into capital expenditures and operating expenses. Operating expenses are again divided into direct operating expenses and miscellaneous expenses.

In determining a fair and reasonable service charge all operating expenses excepting those outgoes due to the production of gas should be classified as expenses due to a readiness to serve. Briefly, then, distribution supplies and expense, gas meters and installation, work on consumer's premises, repairs of gas meters, repairs of gas services and repairs of gas mains are expenses incurred for the purpose of serving all customers and naturally are included in the class of outgoes on which the service charge is based.

Again, commercial expense, relief department and pensions, law expenses, general stationery and printing are in no way dependent upon the amount of gas distributed or sold and should, therefore, be included in the outgoes to make up the service charge.

General administration expenses will be allocated in proportion to the production costs and service charge costs. General amortization will be allocated to production cost or service charge without cost in accordance with necessary replacements or depreciation charges to production capital or distribution capital. Taxes will be divided as per the assessment on the property of the company used in production and the property used in distribution. Inventory adjustments, duplicate charges and expenses transferred will be classified in accordance with facts—probably, generally speaking, as production costs.

The foregoing is supposed to cover the total cash outgoes of the company and in a general way outlines the rule for the division of the operating expenses per se in order to compute service charge and charge for gas.

It is generally understood that from 90 to 95 per cent of the total number of meters connected to a typical gas company's system are of less than ten light capacity and therefore the question of customer's demand appears to be of little importance in computing service charge for a gas company, although the time use of the demand may be considered of great importance in considering service charge for electric service.

Experience shows that where a gas company charges for gas service on a basis of a fixed price per thousand cubic feet of gas that at least 25 per cent of the customers will pay an amount considerably less than the cost to the company in out-of-pocket expenses incident to their service, and the net revenue of the company would be greater if these customers were cut off from service, but this would be distinctly undesirable. They are entitled to the service and therefore a rate should be devised that will permit the company to serve them without loss or without burdening other classes of customers.

If a gas company should establish a method of billing for service based upon a reasonable service charge to all customers, plus a charge for gas in accordance with the quantity of gas consumed, it would eliminate undue preference and properly allocate burdens with reasonable exactitude. If, in addition, the aggregate sum collected through the application of these rates was not in excess of the value of the service rendered but provided for the company a reasonable rate of return, it should meet with the approval of the consumer, the regulatory authority and the investor. All parties in interest, then, being fairly treated, the community would enjoy this service to the extent that their necessity or convenience demands.

Public Utilities Securities Market Report

Prices of Representative Gas Bonds

(Quotations furnished by The National City Company)

Company	Issue	Maturity	—Market— Mar. 10, 1921 Bid	Asked
American Lt. & Trac. Co.	Five Year 6s	May 1, 1925	90¼	91½
Brooklyn Union Gas Co.	First Consol. 5s	May 1, 1945	75½	76½
Columbia Gas & Elec. Co.	First 5s	Jan. 1, 1927	74	85½
Consol. Gas, Elec. Lt. & Pr. Co. of Baltimore	First Ref. 7½s	Dec. 1, 1945	99	100
Consol. Gas, Elec. Lt. & Pr. Co.	General 4½s	Feb. 14, 1935	74½	76
Consol. Gas Co. of New York	Sec. Conv. 7s	Feb. 1, 1925	99¼	99¾
Consol. Gas Co. of New York	One Year Sec. 8s	Dec. 1, 1921	99½	99¾
New Amsterdam Gas Co.	First Consol. 5s	Jan. 1, 1948	57	60
Denver Gas & Elec. Co.	Gen. (now 1st) 5s	May 1, 1949	80	81½
Detroit City Gas Co.	Gold 5s	Jan. 1, 1923	92	95
Equitable Illum. Gas Lt. Co. of Philadelphia	First 5s	Jan. 1, 1928	92	95
Hudson County Gas Co.	First 5s	Nov. 1, 1949	74	77
Laclede Gas Light Co.	Ref. & Ext. 5s	Apr. 1, 1934	74	76
Louisville Gas & Elec. Co.	First & Ref. 7s	June 1, 1923	94	95½
Michigan Light Co.	First & Ref. 5s	Mar. 1, 1946	70	75
Milwaukee Gas Light Co.	First 4s	May 1, 1927	81	83
Pacific Gas & Elec. Co.	Gen. & Ref. 5s	Jan. 1, 1942	77½	78½
Pacific Gas & Elec. Co.	Col. Tr. Conv. 7s	May 1, 1925	96	97
Pacific Gas & Elec. Co.	First & Ref. 7s	Dec. 1, 1940	98	99
Cal. Gas & Elec. Corp.	Unif. & Ref. 5s	Nov. 1, 1937	84	85
Peoples' Gas Lt. & Coke Co.	Refunding 5s	Sept. 1, 1947	69	71
Chicago Gas Lt. & Coke Co.	First 5s	July 1, 1937	72	74
Portland Gas & Coke Co.	First & Ref. 5s	Jan. 1, 1940	75	78
Seattle Lighting Co.	Refunding 5s	Oct. 1, 1949	64	66
Southern California Gas Co.	First 6s	Nov. 1, 1950	85	87
United Gas Improvement Co.	Two Year 8s	Feb. 1, 1923	99¼	99¾
Utica Gas & Electric Co.	Ref. & Ext. 5s	July 1, 1957	76	79
Washington Gas Light Co.	General 5s	Nov. 1, 1960	76¾	78
Western States Gas & Elec. Co. of California	First & Ref. 5s	June 1, 1941	74½	77

Contra Costa Gas Statement for 1920

Contra Costa, Cal.—Contra Costa Gas Company's statement of earnings and expenses for the calendar year 1920, made public at the annual stockholders' meeting showed an increase of more than 22 per cent in gross. It was found difficult, however, to carry this gain over into the net, owing to the increased cost of labor, material and supplies—particularly oil.

The company made considerable improvements to its gas plant during the year, adding a new generating unit. The company's report follows:

INCOME ACCOUNT

Gross earnings	$121,469.23
Operating expenses, including taxes	94,743.18
Net operating income	$ 26,726.05
Interest	14,227.27
	$ 12,498 78
Amortization of bond disc. and expense	$ 422.40
Depreciation of plant and equipment	4,400.00
	$ 4,822.40
Surplus	$ 7,678.38

BALANCE SHEET—DEC. 31, 1920

ASSETS

Fixed capital	$324,866.03
Tools and automobiles	6,775.30
Cash	5,757.97
Construction work in progress	9,304.37
Accounts—gas consumers	11,820.62
Accounts—misc.	1,314.29
Material and supplies on hand	11,772.20
Other assets	37,583.65
	$409,194.43

Pacific Gas Report

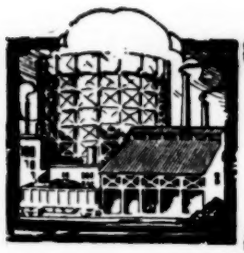
The Pacific Gas & Electric Company reported a net income, after operating expenses and taxes, for the year ended Dec. 31, of $10,142,827, compared with $8,833,560 for the preceding year.

Boston.—Directors of the Beacon Oil Company declared a dividend of 3 per cent, payable Feb. 28 to stock of record Feb. 25.

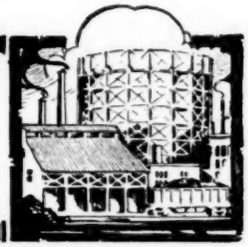
Boston.—Combined net earnings available for dividends of subsidiary companies of Massachusetts Gas Companies for January was $155,850.65, a decrease of $145,033.57, or 48.20 per cent, compared with corresponding month a year ago.

Coast Valley Bonds

King City, Cal.—The State Railroad Commission this week issued a supplemental order authorizing the Coast Valleys Gas & Electric Company to execute a collateral trust agreement to cover the issue of $220,000 in ten-year notes.



NEWS OF THE GAS INDUSTRY



Consolidated Raises Gas Rate to $1.50

Court Refuses to Fix Limit on Charges—New Rate Went into Effect March 1

Following a decision handed down by Judge Learned Hand in the United States District Court on Feb. 28, in which he dismissed the application of the State and County of New York and the public service commission for an extension of the injunction limiting the charge for gas to $1.20, and in which he refused to fix a specific rate, the Consolidated Gas Company gave notice of an increase in gas rates for Manhattan and the Bronx to $1.50 per 1,000 cu. ft., to take effect on the first of March.

In refusing to fix a specific rate or designate what might be a reasonable rate, Judge Hand pointed out that there is now pending before the Legislature, on recommendation of Governor Miller, a bill for the creation of a State public body which will be empowered to fix rates for public utilities regardless of statutory enactments. He also pointed out that in his former decision he predicated an essential feature of his opinion upon the supposition that the Legislature might be reasonably expected to act for the relief of the gas company before March 1. However, during that period it has given power to no public body to fix a rate in excess of the present statutory regulation.

Former Justice William L. Ransom, counsel for the Consolidated Gas Company, in a statement announcing the new rate said:

"The decision of Judge Learned Hand means and provides three things: (1) That in view of the fact that the rates of pay of labor in the gas industry have been necessarily advanced since last August, and the fact that coal, gas oil and other principal materials entering into the making and distribution of gas have substantially increased in cost since last August, the limitation of the Consolidated Gas Company's rate to $1.20, provided for in Judge Hand's decree of last August, will not be continued, and until the new public service commission is vested with jurisdiction the duty rests upon the company of fixing a reasonable rate now and of changing it as conditions permit. (2) That all moneys collected by the company in excess of 80 cents per 1,000 cu. ft. will remain impounded by the court, so they can be repaid if the present judgment in favor of the company is not affirmed by the United States Supreme Court on the pending appeal. (3) That when a new rate is finally fixed by the Legislature or the new public service commission, any difference between the rate actually charged by the company and the rate which it is finally determined the company should have charged during this period will be ordered repaid to all consumers by the court.

"Although the decision of the court leaves the company in position to put in effect any rate it deems reasonable, the company has no desire or purpose to charge a cent more for gas than is necessary to pay actual operating costs and yield a fair return on its actual investment.

"During the six months from Aug. 1, 1920, when the $1.20 rate went into effect, the actual cost of making and distributing gas, including return on the investment, was $1.4705, instead of $1.20, per 1,000 cu. ft. of gas sold. During the operation of the $1.20 rate the company's receipts from its gas sales have been more than $3,200,000 less than operating expenses, plus a fair return on actual investment, as computed by the court.

"At the present time such cost exceeds $1.4947 per thousand, and it has been officially announced that the next tax rate will be 2.77 for Manhattan, 2.84 for the Bronx and 2.85 for Queens, which will add at least 1.7 cents per thousand to the cost, bringing the present 1921 figure above $1.50.

"At the present time a rate of $1.50 will do no more than pay actual operating expenses and a return of not more than 7 per cent on the actual investment as computed by the court.

"The rate at present fixed by the company will accordingly be $1.50. This rate will be decreased when and as the operating costs decline.

"The company believes that a rate of $1.25 per thousand plus a service or "consumer" charge of 60 cents per month per meter would be a preferable form of rate, yielding approximately the same revenue as a flat rate of $1.50 per thousand. As soon as this can practicably be done the company will seek authority to change to this sounder and fair basis for its charge.

"Counsel for some of the defendants have tried, in the public press, to fasten responsibility for this increased cost of gas upon this company's present contract for gas oil, which is at the rate of 12¼ cents per gallon. This explanation does not explain. In 1920, down to the middle of December, this company paid only 7.1 cents per gallon for its gas oil, whereas other companies in this city and vicinity were paying 12½ cents to 15 cents per gallon. Nevertheless, during the six months ended Jan. 31, 1921, the actual costs of operation plus return on actual investment were over $1.47 per thousand, despite the low oil price for four and one-half months of this period.

"When this company negotiated its 1921 oil contract it asked for bids from all oil companies that could possibly supply this territory. Such bids as were received by this company exceeded the new contract price, some of them for poorer oil

and uncertain delivery. The price of 12¼ cents was the best price the company could obtain from any source. This price is half a cent lower per gallon than the Brooklyn Union Gas Company is paying. The Bronx Gas & Electric Company was paying 13.05 cents until it received the benefit of the Consolidated Gas Company's lower price. The New York & Richmond Company and the Brooklyn Borough Gas Company were then paying 14 cents per gallon from the Gulf Refining Company. The contract was made for only six months, so a lower price can be had for the latter part of 1921 if oil prices fall.

"This company has not sought to increase its revenues except as its costs of materials and labor have increased. As those costs go up or down the company's revenues have to go up or down to cover those additional costs, but not to add a cent to the company's revenues over and above such increases in operating costs."

Illinois Chamber of Commerce Votes for Retention of the State Utilities Commission

Chicago, Ill.—Agitation from political sources for a return to the old form of regulation of the State's public utilities by inexpert city councils, such as has been abandoned in forty-two States of the Union as being obsolete, has received two heavy recent blows.

By an almost unanimous vote of 21,825 out of a total of 22,864 cast, Illinois business men flatly announced themselves in favor of retention of the State Public Utilities Commission and against the form of regulation that has been called "home rule." This vote was recorded on the referendum submitted by the Illinois Chamber of Commerce to its seventy-five member chambers throughout the State.

The vote of the Illinois business men is one of the most composite expressions of opinion ever voiced by business men in this State, the large number of 22,864 votes being cast. The result clearly demonstrates the predominating feeling of business men of the State, from Cairo, on the south, to Freeport and Rockford, on the north; and from East St. Louis, Quincy and Moline, on the west, to Danville and Chicago, on the east.

The business men of the State made a close study of the situation before casting their ballots. The matter was discussed at the annual meeting of the State chamber in Chicago on Nov. 18, 1920, and again at an open forum held in Springfield, Jan. 26, at which representatives from fifty cities attended. At this meeting, advocates of a return to the old system of city council regulation of utilities were permitted to make full arguments respecting their contentions for abandonment of the present system of regulation, such as is in effect in forty-two States.

The referendum submitted to the business men contained the following questions:

1. Public utilities, because of the close relationship existing between their services and the every-day life of every person in the State, should be regulated in an equitable manner, fair and just alike to the companies and their customers.

2. Electric, gas, transportation and telephone companies having largely outgrown local boundaries, should be regulated by a commission maintained by the State and equipped with expert technical advisors, rather than by local bodies of non-experts giving only a part of their time to this work, with a necessary duplication of expense to the public for expert advice and assistance.

3. Utilities located entirely within one local jurisdiction should nevertheless be regulated by a State commission rather than by a local body, in order that regulation throughout the State may be uniform in principle, purpose and application; that discrimination between communities may be prevented, and that there may be no danger of local controversies such as destroy the confidence of investors, and at once halt extensions because of the inability of utilities to negotiate such sales of investment securities as are necessary to the continued development of utility services, both within the local jurisdiction and eventually outside of its confines.

4. Appointments to the State Utilities Commission should be strictly non-political; should not be considered as in the nature of political rewards, and should be made by the Governor under some system that will insure a non-political, unbiased and strictly businesslike administration of the affairs of the commission.

Injunction Extended to June 1

Brooklyn, N. Y.—The injunction which the Brooklyn Union Gas Company obtained from the United States District Court restraining the Public Service Commission, the Attorney General of New York and the District Attorney of Kings County from enforcing the provisions of the statutory law regarding gas rates was extended by Judges Ward, Hough and Mayer sitting in statutory court, until June 1. The present injunction, which continues in force for another three months, was modified by a court decree on Nov. 25, 1920, and is to remain in force, with the expectation that a final settlement will be made by the United States Supreme Court before the expiration of the period stated.

Norfolk Gas Co. Entertains

Norfolk, Va.—The City Gas Company of Norfolk entertained on Thursday, Feb. 17, the Kiwanis Club, seventy-three strong, on Tuesday, Feb. 22, the Rotarians, 118 strong, and on Thursday, Feb. 24, the city manager, council and other city officials, thirty-two strong.

The program on each occasion was practically the same. T. Norman Jones, the general manager, acted the host on each occasion. In a large room at the gas plant, suitably decorated, a luncheon was served by the ladies of the company. During the progress of the luncheon E. G. Holzer, assistant general manager, assisted by a drawing of the plant on the wall, explained the apparatus required in the process of manufacture, after which he demonstrated the safety appliances used on street work, and also gave a practical demonstration of the pulmotor, followed by a description and the operation of the gas meter, after which a tour of inspection of the plant was made and the functions of each apparatus explained by S. A. Goodman, works superintendent.

Each affair passed off in a highly satisfactory manner, and was thoroughly enjoyed by all, many expressing their surprise at the magnitude of the plant and the equipment and processes necessary for the production of gas.

Directory Issued by Bureau of Mines

A complete directory of petroleum refineries in the United States has just been issued by the United States Bureau of Mines. The report, compiled by H. F. Mason, petroleum economist, states that there are 415 completed refineries in the country as compared with 373 in 1920. In addition, forty-four refineries are in process of construction. The present daily capacity of all refineries is 1,888,800 bbl. of oil as against a daily capacity of 1,530,565 bbl. in 1920. Texas, with seventy refineries, has the largest number of plants now in operation. Oklahoma has sixty-eight, Pennsylvania fifty-one and California has thirty-nine operating refineries. The daily capacity the Texas refineries now operating is 330,800 bbl.; that of the California refineries is 312,700 bbl. of the Oklahoma refineries, 248,050 bbl., while New Jersey, with only seven refineries operating, has a daily capacity of 215,500 bbl. The report contains data regarding the capacity and type of each plant listed as well as information as to whether at present in operation.

Copies of the report may be had by applying to the director of the Bureau of Mines, Washington, D. C.

Gainesville Men Buy Plant at Marietta

Gainesville, Texas.—The Marietta (Okla.) gas, electric and water plant, owned by that city, has been sold to a number of Gainesville men. The new corporation has been capitalized for $100,000. Henry Bier is president, Joe Curtis, vice-president and treasurer; Hugh A. Price, secretary and general manager. All are citizens of Gainesville. Mr. Price will move to Marietta.

Voters May Take Over Gas Plant

La Junta, Col.—Taxpayers will vote April 5 on the proposition of the purchase of the city gas plant, at the request of directors of La Junta Industrial Association. The bonds will amount to $70,000.

Gas Light Employees Hold Dance

Cambridge, Mass.—The C. E. Z. Club, composed of young ladies of the official force of the Cambridge Gas Light Company, held their annual dance on Jan. 28 at Grantanbry Hall. Seventy-five couples attended and enjoyed dancing to the music of Johnson & Jefferson's Jazz Orchestra. President and Mrs. Albert M. Barnes, Vice-President and Mrs. Karl S. Barnes, Treasurer and Mrs. Vinton W. Mason and Superintendent and Mrs. Isaac T. Haddock were present as invited guests. The feature dance of the evening, the grand march, during which favors were distributed, was led by Mr. and Mrs Albert M. Barnes.

Rochester Gas Co. Ordered to Reduce Rate

Albany, N. Y.—The maximum price of gas sold by the Rochester Gas & Electric Corporation is to be reduced from $1.30 to $1.05 per one thousand feet in addition to the service charge of 40 cents a month, according to a ruling of the Public Service Commission, second district.

The order, which took effect March 1, also provides further authority for the company to add 10 per cent when the bills are not paid promptly.

New Installation at Stevens Point

The Wisconsin Valley Electric Company, Stevens Point, Wis., is installing four 8x32-ft. high-pressure gas storage tanks and 6,250 ft. of six-inch high-pressure gas mains to reinforce their present distribution system. About 7,000 ft. of low-pressure mains will be laid to eliminate dead ends. Two hundred feet of the high-pressure main is laid on piling over open water and is boxed in to protect it from extreme cold.

After the high-pressure main is in operation the gas plant will be one of the best equipped plants in the State. It will be as near perfect as modern machinery will make a small plant.

Statement of Ownership of Cambridge Gas Light

Cambridge, Mass.—A statement issued by the Cambridge Gas Light Company shows that 198 trusts, estates, educational and charitable institutions hold 5,663 shares; 409 women, 5,646 shares; 261 men and firms, 5,491 shares; a total of 868 stockholders and 16,800 shares.

The total holdings of 90 per cent of the stockholders are not quite 55 per cent of the capital. The remaining 45 per cent of total capital is held by 39 institutions, 19 women, 29 men and firms.

Announce Annual Meeting

Stone & Webster announce that the annual meeting of stockholders of the Haverhill Gas Light Company will be held on March 15 and the transfer books will be closed from March 5 to 15, inclusive.

Worcester Company Reduces Industrial Gas Rates

Worcester, Mass.—The Worcester Gas Light Company has reduced its price for gas to the large industrial consumers. Only those using in excess of 300,000 cu. ft. per month are affected. In excess of 300,000 and under 500,000 cu. ft. the rate is changed from $1.50 to $1.45 per thousand cubic feet. Gas consumed in excess of 500,000 cu. ft. is reduced from $1.50 to $1.35 per thousand cubic feet.

No change in price will be made to smaller consumers. Asked as to the householders' rate, Manager C. E. Paige stated that no change in conditions has arisen to warrant a reduction to small consumers. While the market for ordinary steam coal has dropped the special gas coal used by the company has not changed in price, nor has fuel oil fallen appreciably. The difference between income and output are not sufficiently great at this time to warrant any change from the present $1.65 rate. Continuing, Mr. Paige said:

"The Worcester Gas Light Company has reduced its price for gas to its large industrial consumers comprising those who use the fuel in quantities exceeding 300,000 cu. ft. per month. Those using between 300,000 and 500,000 cu. ft. per month are reduced from $0.15 to $0.145 per 100 cu. ft. Gas used in excess of 500,000 cu. ft. per month will be reduced from $0.15 to $0.135 per one hundred feet. The change went into effect March 1.

"Only the largest industrial users are affected, but their total consumption is very large. The company desires to make this class of consumption still larger.

"The Worcester Gas Light Company, in common with all other dispensers of power, makes its price to industrial users on the basis of the amount of gas consumed, the larger the quantity, the lower the rate. The wholesale price of gas in Worcester has been higher than in most of the industrial centers of

New England. The purpose of the reduction is to encourage the use of gas in manufacturing processes. This benefits industry and the community as a whole.

"The volume of gas produced in a plant is a very important factor in its cost. Where a plant is operated at full capacity the cost of production is naturally less than when the plant is running at partial capacity. It is to the interest of the small user that the consumption of the larger users be developed and encouraged. Therefore, it is desirable that the daily consumption by the city as a whole be increased, and this can best be accomplished through the increasing use of the fuel in the great industries of the community.

"The fulfillment of this aim has a direct bearing upon the future price of gas to all people, because it would tend to decrease cost of production."

Gas Company Voluntarily Reduces Rates

Gloucester, Mass.—City Solicitor M. Francis Buckley has received a notice from the department of public utilities that the Gloucester Gas Light Company has voluntarily agreed to make a reduction of the price of gas from $1.80 per thousand cubic feet to $1.75, and that consequently the petition of ex-Mayor Brown for a reduction in the price of gas as established by the Gloucester Gas Light Company is dismissed without prejudice, allowing the question to be reopened at any time on the petition of either party.

The order of the commission is as follows:

"Petition of mayor of city of Gloucester for reduction in the price of gas as established by the Gloucester Gas Light Company.

"This petition was directed at a schedule of rates put into effect by the Gloucester Gas Light Company on Sept. 1, 1920, on bills rendered Oct. 1, 1920, whereby the maximum net rate was increased to $1.80 a thousand cubic feet. A hearing was held Oct. 6, 1920, and at the request of the city solicitor of Gloucester was continued until Nov. 10, 1920.

"From the evidence presented it seemed advisable to wait until the expiration of the year in order to ascertain the results of the new rates. The figures resulting from the operation for a period of three months under the new rates, have just become available, and after an examination of them and a conference with the company, the company has agreed to make a reduction in the maximum net price to $1.75.

"Without committing ourselves at this time as to whether the proposed reduction is sufficient or not, but in view of the unsettled and changing conditions, it seems advisable to try the new rates for a further period of six months, and meantime to dismiss this petition without prejudice. If circumstances change materially for the better or the worse the question can be opened at any time in the future on the petition of either party.

"It is accordingly ordered, that the petition be dismissed."

The reduction as made will affect the smaller users of gas only, or those using less than 200,000 cu. ft. per year, the price for the past three months has been at the rate of $1.80 per 1,000 cu. ft., which price is now reduced to $1.75 per 1,000 cu. ft. The price for consumers of gas over 200,000 cu. ft. per year which has been at the rate of $1.50 per thousand and those using over 400,000 cu. ft., which has been at the rate of $1.25 per 1,000 ft., will remain the same.

Asks Rate Increase for Salem

Salem, Ore.—An increase in gas service rates in Salem is asked by the Portland Railway, Light & Power Company in an application filed with the Public Service Commission. The application shows that the company has operated the gas department of its Salem plant at a loss for the last three years, placing the loss in 1918 as $18,520.22, in 1919 at $16,280.35, and in 1920 at $11,656.11, and estimates the loss for 1921, unless relief is afforded, at $18,021.58. A new gas generator is being installed at the Salem plant.

Corporation Commission Fixes Tentative Valuation

Oklahoma City, Okla.—A tentative valuation for rate making purposes of $403,945.22 has been placed by the Corporation Commission upon the property of the Shawnee Gas & Electric Company at Shawnee.

This valuation is the amount submitted by the company and includes a replacement valuation of $336,621, which was represented by the company to be necessary to replace the property, and per cent additional for intangibles such as working capital, financing, going concern value, etc. The valuation is fixed as an amendment to the order of the commission of June 1, 1920, increasing rates at Shawnee, and is only to be utilized in connection with that case subject to further inquiry and change by the commission. The rates fixed by the order of June 1 are not changed.

Victory for Gas Company

Dayton, Ohio.—Deciding that the City Commission of Dayton acted within its powers in granting increased rates and other concessions to distributing gas companies in that city, Federal Judge Sater dismissed injunction proceedings brought by the Gas Consumers' League, an organization of Dayton residents.

"The right to appeal and to change the rate by passage of a new ordinance is well settled and within legal limits," the decision stated.

Municipal Plant Reduces Gas Rate

Cartersville, Ga.—City Manager A. Cook has announced a reduction from $2.50 to $2 per thousand feet for gas from the municipal gas plant.

This announcement comes, says Mr. Cook, because of a decrease in the cost of manufacture, and he adds that the city authorities have authorized him to make further reductions just as soon as conditions warrant it. In making this announcement, the city manager said:

"The new rate is the same as that recently ordered by the Railroad Commission for the city of Atlanta. It should be borne in mind in this connection that while there are thirty-two thousand gas consumers in Atlanta, we have only 350. We believe that, with these facts in mind local citizens will feel they are getting an unusually low rate. Should conditions warrant, further reductions will be announced from time to time."

Gasser Making 30,000,000 Ft.

Lawton, Okla.—The No. 1 well of the Magnolia Petroleum Company topped the sand at 1,753 ft. and is making 30,000,000 cu. ft. of gas. It is one of the biggest gas gas.

Consumers to Name Director in Gas Company

Brooklyn, N. Y.—A meeting of the various civic and trade associations of the Bay Ridge, Fort Hamilton, Bath Beach and Borough Park sections will be held in the offices of the Kings County Lighting Company, next week, to discuss the best method of selecting a representative of these various civic and business interests to serve on the board of directors of the company. Ralph Elsman, president of the company, said the meeting would be held next week, if he is physically able to attend, otherwise it will be postponed for one week. Mr. Elsman has been slightly ill for more than a week.

When a $2,000,000 preferred stock issue was floated by the company at the beginning of the year, Mr. Elsman stated that he hoped to sell a large portion to consumers and that if he succeeded in this, he would appoint some consumer to the board of directors to represent the capital invested by the consumers.

Derby Gas Company Seeks to Change Its Name

Derby, Conn.—Through the provisions of a bill which has been presented to the general assembly, the Derby Gas Company will be empowered to change the name of its corporate body to the Derby Gas & Power Company. The bill provides not only for the change in name of the corporation, which supplies all this vicinity with gas and electricity, but empowers it to increase its capital stock from $2,000,000 to $3,500,000.

The bill has already been approved by the committee on corporations at Hartford and has gone to the house of representatives for action. No opposition to the bill is anticipated and from present indications it is expected to be passed by both the House and Senate and be ready for the Governor's signature by the 14th of the month.

New Gas Holder to Meet Increased Demand

Mt. Atkinson, Wis.—A force of men from the Stacey Manufacturing Company, Cincinnati, are busy these days at the gas works, constructing an additional holder with 100,000 cu. ft. capacity. The old container which up to this time has taken care of the local gas needs, only holds 30,000 cu. ft., and it is therefore easy to discern that the plant will soon have capacity to take care of the great demand for gas. Heretofore restricted capacity and obsolete equipment have prevented expansion. No new patrons could be taken care of, but soon this trouble will be eliminated.

Copley Bill Would Make Utilities Pay Appraisal

Lansing, Mich.—A bill which would make public utilities pay for auditing of their books or appraisal of their plants by the Public Utilities Commission is being considered by the House public utilities committee.

The bill was drawn by Representative A. Ward Copley, of Detroit, chairman of the committee, at the request of the commission. It was suggested by Governor Groesbeck.

Under the new law the State has to pay for this work when performed to determine on a fair rate, but the utilities pay when it is for the purpose of deciding on capitalization.

The measure is expected to have strong backing from the farmer representatives in the Legislature, because the rural districts now have to share in paying for appraisals of the public utilities in cities.

Another utilities measure that is up in the House is that of Representative Edwin B. Ramsey, of Lansing, which authorizes cities under 100,000 population to bond for 10 per cent of the assessed valuation of real and personal property of the city for purchase of public utilities.

It is now possible for cities to raise only 2 per cent for this purpose and the effect of the bill is to strengthen home rule in cities of this class so far as utilities are concerned.

Gas Official Killed in Tank Explosion

Taunton, Mass.—Leon R. Lincoln, assistant superintendent at the works of the Taunton Gas Light Company, died in an ambulance while on his way to the hospital as the result of burns and the inhaling of poisonous fumes, following an explosion at the company's plant.

Mr. Lincoln was doing some work in one of the rooms, when a water gas tank burst, and he was thrown to the floor. Workmen in adjoining parts of the plant hurried to the scene of the explosion and found Mr. Lincoln in an unconscious condition. The ambulance was summoned, but before it reach the hospital he died.

The young man was a world war veteran, having served in the Fourteenth Railroad Engineers overseas.

Racine Gas Plant Damaged by Fire

Racine, Wis.—An explosion in the engine and compressing rooms of the Wisconsin Gas & Electric Company caused a property loss of upwards of $100,000, the injury of one man and the shutting off of all gas supply in Racine, South Milwaukee, Cudahy and intermediate points, all served from the local plant.

The cause of the explosion is as yet unknown. It rocked the entire city, completely wrecking the engine and compressing rooms and shattered windows in buildings within a radius of four blocks.

Omar Wolfe, engineer at the plant, is at a local hospital in a critical condition.

New Apparatus for Wisconsin Plant

Appleton, Wis.—To take care of the rapidly growing demand for gas the local plant of the Wisconsin Traction Light, Heat & Power Company will be completely rearranged and new apparatus provided.

It is announced that the first contract has been placed with the Western Gas Construction Company and will include two 20-ft. diameter purifiers, two 6-ft. diameter scrubbers, an exhauster and a large amount of valves and piping. There will also be a new relief holder built.

Erects Oil Storage Tank

Newport News, Va.—Along the line of reducing expenses to the minimum, Manager Cocke of the Newport News & Hampton Railway Light & Power Company has taken advantage of the steel water tank and the crown of the gas container of an old relief holder and has had this converted into a first-class oil storage tank.

The new materials and the erection work were taken care of by the Western Gas Construction Company.

Customer-Owner Plan Is Popular

San Francisco, Cal.—The degree of popularity which the customer-ownership plan of financing public utility expansion has attained elsewhere than in northern California is evidenced by the Standard Gas & Electric Company's 1920 report, just received here, showing that $8,439,400 of its securities were purchased by its customers during 1920. Its sales of preferred stock were much greater than during any year since the customer-ownership plan of financing was inaugurated.

The Standard Gas & Electric Company is a Byllesby concern, which controls two important properties in California, as well as a number in the Northwest, South and Middle West. The two California concerns affiliated with the Standard are the Western States Gas & Electric Company, of Stockton, and the San Diego Consolidated Gas & Electric Company.

Gas Employees Get Service Buttons

Sioux City, Iowa.—The employees of the Sioux City Gas & Electric Company discussed "Service" at their regular monthly meeting held in the offices of the company. Service badges were distributed to those who had been in the employ of the company for more than five years.

Among those who talked on this subject were: W. J. Heinritz, for the construction department; A. Fellwock, electric station; J. Prince, electric distribution department; Ralph Herrick, gas distribution department; O. W. Harrod, gas works, and George Myers, office.

Following the discussion a slogan, "May Our Service Deserve Your Good-Will," was unanimously adopted. This is to be kept as a constant reminder of the kind of service to be rendered by them and the goal which they will strive to reach.

Service buttons were presented to all employees who had been with the company for more than five years, which included forty-three persons. L. L. Kellogg received a thirty-five-year button, which is the longest service of anyone now affiliated with the company. Three persons were given thirty-year buttons, four received twenty-five-year buttons, two were presented with twenty-year buttons, and nine were recipients of fifteen-year buttons.

Complaints Unjustified, Finds Gas Rate Expert

Savannah, Ga.—E. M. Price, a gas rate expert sent here by the Georgia Railroad Commission to investigate the gas situation in Savannah and the numerous complaints made by consumers relative to excessive rates, has turned in his report to the commission in Atlanta, in which he declares that careful investigation of the matter indicates that a great majority of the complaints on gas bills were unjustified.

Set of Valves Installed at Purifier Plant

North Adams, Mass.—Through the Gas & Electric Improvement Company of Boston a contract has been placed to furnish a very interesting set of valves to be attached to the present purifiers at North Adams, Mass.

One set of valves and fittings will enable the three boxes to be operated in series, with any one first.

In addition to this, reversing valves will be installed requiring a pair of these valves on each box and so arranged that the direction of flow of gas through the layers of oxide may be reversed at any time without altering the sequence of the boxes.

All the valves and fittings are being furnished for them by the Western Gas Construction Company, which originally built the purifier plant.

Personal Notes

EZRA B. WHITMAN has been appointed a member of the Maryland Public Service Commission to succeed the late James C. Legg. Mr. Whitman conferred with the other commissioners and with his own professional associates in his engineering firm before coming to a decision.

Mr. Whitman was appointed water engineer by Mayor Preston in the fall of 1911. At the time of his appointment Mr. Whitman was engineer in charge of the sewage disposal works at Back River. He has wide experience since his graduation from Cornell University in June, 1901. In 1904 and 1905 he took a special course in chemistry and bacteriology at the Cornell Medical School in New York City. Soon after his graduation from Cornell Mr. Whitman associated himself with Roger B. Williams, Jr., New York, as civil and sanitary engineer. He has been employed by the United Railways & Electric Company, the Bacterial Sewage Purification Company of Chicago and has designed and built a number of water and sewerage plants in various parts of the United States. Mr. Whitman was highly recommended for a position as engineer on the Panama Canal work by President Schurmann of Cornell University and Henry N. Ogden, assistant inspector general of the National Home for Disabled Volunteer Soldiers, Johnson City, Tenn., where he planned and constructed a sewerage and water system. He was "mayor" of Camp Meade during the war, and later went to Poland with Edward H. Bouton to study housing and sanitary conditions.

G. T. WHITE, business manager of the Knoxville, Tenn., has been transferred to the Lebanon Gas & Fuel Company at Lebanon, Pa., as manager. His successor has not yet been named.

H. C. MCALLISTER has been named as manager of the newly created San Bernardino-Riverside division of the Southern California Gas Company, with headquarters in San Bernardino. The appointment is effective at once. By the new arrangements Mr. McAllister is in charge of the company's business in the entire district, including the cities of Colton, Riverside and San Bernardino, and the lines reaching into Highland and Rialto. He will have a local manager in the larger communities but will have general supervision over the entire division. Mr. McAllister has been local manager for the company since the fall of 1917, succeeding C. M. Grow when the latter went to Los Angeles. For several years previous to that time Mr. McAllister was connected with the company's local offices, and is well known as an efficient official. For several years Mr. McAllister has been prominent in the city's business life, being a director of the Chamber of Commerce, members of the executive committee of the National Orange Show, a director of the San Bernardino Valley Bank and active in other lines. The appointment makes San Bernardino headquarters for all business of the company in the interior district.

JOHN J. MADDEN, known as "Pop," an employee of the Boston (Mass.) Consolidated Gas Company at its Brookline office, died at his home in Brookline the latter part of February after two weeks' illness. He was born in Brookline in 1868 and lived all his life in that community, working as foreman for the gas company.

G. O. SMITH has become affiliated with the American Atmos Corporation as vice-president and chief engineer. For eight years he has been in charge of the Department of Safety and Welfare of Henry L. Doherty & Co. Mr. Smith is a director of the National Safety Council, first vice-president and a director of the American Society Safety Engineers, and a member of several other national technical and safety engineering societies, and has been instrumental in assisting many of the most important reforms in the United States since the inception of the safety movement.

AUSTIN FOLLETT has succeeded Harry Barrows as president of the North Attleboro (Mass.) Gas Light Company.

H. P. WOODBURY, of Boston, Mass., has completed installing a bench of six retorts and ironwork in the plant of the North Attleboro (Mass.) Gas Light Company. He has also been awarded a contract to refill two old arches with six retorts each, to be completed by May 1. A new station meter is to be installed soon.

W. A. DUNKLEY, formerly gas engineer with the Illinois State Geological Survey, has been appointed gas engineer and acting superintendend of the Mining Experiment Station of the U. S. Bureau of Mines at Urbana, Ill.

B. H. GARDNER, appointed as manoger of the interests of the Northern Indiana Gas & Electric Company, Lafayette, Ind., arrived last week to take up his work. He succeeds Thomas Donohue, who was presented with a beautiful diamond pin by the employees of the gas company as a token of the esteem in which he was held by his colaborers. Mr. Gardner comes from Waterbury, Conn. He has had ten years experience in positions of this character being for six years with the Dayton, (Ohio) Light & Power Company. He is a graduate in electrical and mechanical engineering.

JOSEPH MOORE, JR., president of the Pennsylvania Salt Manufacturing Company, Philadelphia, Pa., died Feb. 11.

$2.35 Gas Rate Granted

Albany, N. Y.—The Republic Light & Power Company has been authorized to charge a rate of $2.35 per 1,000 cu. ft., with a discount of 10 cents per 1,000 cu. ft. on bills paid in fifteen days, making a net rate of $2.25 for manufactured gas in Tonawanda and North Tonawanda, under an order of the public service commission. The rate is effective on five days' notice on or before March 12 and continues in effect until Aug. 1 and until further order of the commission.

The Republic Company has acquired the Niagara Light, Heat & Power Company, and operates in the two cities under franchises to the latter company. The company charged $1.20 per 1,000 cu. ft., with a discount of 20 cents, when the petition was filed.

Los Angeles Gas Applies for Another Stock Issue

Los Angeles, Cal.—On the score that it requires funds for the acquisition of property and to make extensions and improvements to its present system, the Los Angeles Gas & Electric Corporation has asked the railroad commission for authority to issue $2,000,000 of its first preferred stock. An order made by the commission last month authorized the company to issue $1,000,000 of stock.

This latest application is for another issue, the company claiming that it needs the money in order to maintain its service standards and to meet growth and development requirements of Los Angeles and vicinity.

Explains Manufacture of Gas at Housewives' Meeting

Providence, R. I.—F. C. Freeman, engineer at the Providence Gas Company, recently gave a comprehensive and instructive talk for the members of the Providence Housewives' League at the Girls' City Club on the subject "Gas Facts." The gas company had erected two sets of gas fittings, with every conceivable gas light attached, and by means of this equipment the speaker demonstrated his points and gave a very interesting talk. There were questions afterwards, indicating the interest of the audience, and for nearly two hours speaker and hearers went over the gas situation together.

"Get one thing out of your minds," said Mr. Freeman: "there is nothing the matter with the quality of the gas your gas company is sending out. There may be trouble with the amount you are receiving, and there may be trouble with the piping in your house, or it may be that you are trying to light a room with an old-fashioned flame burner invented over 100 years ago, but there is nothing the matter with the quality of the gas you are receiving."

With the soft pedal on the technical terms, and with careful and detailed explanations, Mr. Freeman explained how gas is made, and why it is costing a great deal more to make it to-day than in past years. He explained the coal contract prices, the competition which all manufacturers of gas have in the automobile industry as purchasers of oil, the decrease in the value of one of their important gas by-products, coke, and other details of the business.

"If you have trouble with your gas," he said, "let the gas company know about it and we will send, free of charge, an investigator to locate your trouble and advise you how to get rid of it. It may be that the piping from the street to your burner is plugged with waste. It may be that your gas range is worn out. It may be several things that can easily be corrected. We will investigate for you upon request."

The demonstration of the effect of dirt in the pipes was made with the equipment, and a gas plate representing the gas stove was shown, and the difference in pressure in a system where the pipes are clean and that where they are old and clogged with dirt or rust was very evident.

The questions from the floor had largely to do with the comparative cost of gas as compared with other means of lighting and heating.

The speaker distributed at the close of his lecture printed instructions of "Do's" and "Don'ts" for the use of the gas stove, with the request that they be placed near the gas range. A vote of thanks was given Mr. Freeman at the close of the afternoon.

Court Allows Gas Company Use of Impounded Money

Brooklyn, N. Y.—To enable the Brooklyn Union Gas Company to meet indebtedness, Federal Judges Ward, Hough and Mayer have directed Special Master William Welling to return to the company funds estimated at $1,078,000 which had been impounded to guarantee refunds to consumers in case the company should lose its fight to sustain the rate now in force.

To protect the customers the company was ordered to deposit with the special master as security not over $2,500,000 in the capital stock of the Newtown, Jamaica, Woodhaven and Richmond Hill and Queens County Gas Companies, subsidiaries of the Brooklyn Union.

The opinion of the court stated that if the conclusion of the special master was correct, that the actual cost of making and distributing gas is now 85.73 cents and the invested capital of the company is $28,000,000, the possibility "of any material reduction in the rate of $1.10 is most remote."

James H. Jourdan, president of the Brooklyn Union, submitted an affidavit reciting that the company has cash and Liberty bonds aggregating $1,275,000 to meet current indebtedness of about $8,000,000, and that it is absolutely necessary for the company to secure the deposit fund if it is to continue service to its customers.

After this decision the report of Special Master James G. Graham who took the evidence in the case which the company now has against State and county officials, was filed with Judge Mayer. Mr. Graham reported that there had been a growing decrease in the returns to the gas company. He said that in 1918 the return amounted to 3.50 per cent, calculated on only a portion of the investment; that it fell to 0.92 per cent in 1919 and that for ten months of 1920 there was a loss of 2.89 cents on every 1,000 ft. of gas sold.

"Since the various assessments were made," the report goes on, "the gas company has put into the plants substantially $2,500,000 for extensions and additions. The interest of the consumers and the company demands a speedy determination of this action. The consumers are paying in excess of the statutory rate, and the plaintiff company claims to be losing a large amount of money each month, and is compelled to give service without additional return. After resolving every doubt against the plaintiff, it is plain that its property has been confiscated to a very considerable extent, and is still being so treated."

This finding indicates that the rate of the company will be still further increased, probably to about the amount that the Consolidated is now charging in New York City.

Burdett Bill Passed by Senate

Boston, Mass.—The capitalization-of-premiums bill which allows the gas and electric corporations to issue $30,000,000 of stock without the payment of additional money for it by the stockholders, was passed by the Senate by a vote of twenty-three to fifteen.

A motion by Senator George D Chamberlain of Springfield to delay action on the bill until an opinion could be obtained from the Public Utilities Department as to whether the bill is consistent with the best interests of the public was rejected.

The bill now goes to the House.

To Fight Gas Writ

Cleveland, Ohio.—The East Ohio Gas Company has filed a petition in rebuttal to the injunction granted by Judge Baer as a request to the city of Cleveland and surrounding communities last week restraining the company from cutting off the gas service to consumers.

The company admitted the various ordinances and laws set forth in the city's restraining injunction and took exception to the charges that the service had been excessively impaired during winter months. They asked that the temporary injunction be dissolved.

Cleveland and its suburbs, Lakewood, East Cleveland and Rocky River, jointly obtained the injunction on Feb. 3. This was after President M. B. Daly had officially threatened to shut off service at midnight on Feb. 6. That was the date upon which the company contended the rate agreement of 35 cents a thousand cubic feet for natural and 80 cents for artificial gas, in effect for ten years, expired.

The city suburb injunction calls not only for continuance under the ordinances adopted in Cleveland continuing the rate of the old ordinances but places in effect stringent regulatory features on pressure maintenance and extensions.

The company demands a sliding upward scale beginning at 50 cents a thousand cubic feet net to consumers for the first 5,000 cu. ft. and graduating to $1 for each thousand cubic feet in excess of 20,000 cu. ft.

Thirty thousand acres of Geaugaco land are under lease to the East Ohio Gas Company.

Fixes Service Charge for Gas

Albany, N. Y.—The Public Service Commission, Second District, ordered that 40 cents a month a customer be fixed as the maximum service charge to be collected by the Fulton County Gas & Electric Company, effective from March 1 for one year and thereafter until the commission shall fix a higher or lower service charge. The commission also dismissed the complaints against the company's rates for gas which went into effect on Sept. 1. Complaints against service are dismissed as satisfied.

The Fulton County company under a tariff filed effective on Sept. 1 increased its block rates for gas for light, fuel and power 30 cents per 1,000 cu. ft. and service charges ranging from 50 cents to $1 a month a meter, varying according to the size of the meters. Complaints followed solely against the service charge imposed. It was claimed that a service charge was illegal.

Lawrence Gas Company to Install "White Way"

Lawrence, Mass.—Fred Sargent of the Lawrence Gas Company has assured Mayor White that the directors of the company who for a long time have refused to consider installing a "white way" in Lawrence, are now willing to take up the proposition and he has submitted plans and estimates as to the cost of service after the new system is installed.

As has been done in other cities it is understood that the gas company will bear the full expense of the erection, bear also the maintenance expenses and charge the city for lighting service. Previous estimates on the cost of erecting the new system were given in the vicinity of $75,000.

The new "white way" when completed will extend from Newbury and Essex Streets to Broadway and Haverhill Streets.

Huge Gas Holder Under Construction

Appleton, Wis. — Construction of a huge gas holder has been started by the Wisconsin Traction, Light, Heat & Power Company near its electric substation in Neenah. A crew of about forty men is erecting the foundation.

With a capacity of 200,000 ft., the new storage tank will hold a sufficient supply of gas to take care of Neenah for twenty-four hours. It is to measure about 75 ft. in diameter and is said to hold twice as much gas as the holder in use there.

Addition of this tank to the company's gas equipment will be a help to Appleton as well as Neenah. It will be possible to give Neenah full pressure at the time of peak loads without drawing on the Appleton supply sufficiently to affect the pressure here.

There has been no complaint in either city for the past month or more about gas service, but considerable agitation was waged in Neenah previously because the pressure went low at times. The company is asking increased gas and electric rates, but the Railroad Commission denied the request until adequate service could be assured. There will be no question of a plentiful gas supply with the new equipment added, it is believed.

Rate Increases Authorized

Brazil, Ind.—An increase in domestic gas rates starting April 1 for the city of Brazil has been authorized by the Public Service Commission, on petition of the Brazil Gas Company. The new rates have been placed at $2.25 for each 1,000 cu. ft. for the first 5,000 cu. ft. and a minimum monthly charge of $1.20. Increase of the natural gas rates at Muncie, Hartford City and Fairmount, effective from March 1, has also been authorized by an order issued by the Public Service Commission.

The monthly minimum charge for each meter would be $1.25, with the consumption rates as follows:

First 1,000 cu. ft. $1.25 gross, $1 net; next 99,000 ft. 60 cents gross and net; over 100,000 ft. 50 cents gross and net. The net charge obtains if payment is made within ten days after the bill is rendered by the company.

Charged with Theft

Mason City, Iowa.—Stanley M. Little, of Grundy Center, Iowa, is at liberty on $1,000 bond, following his indictment on a charge of embezzling $10,000 from the Peoples Gas & Electric Company here while employed as the firm's cashier, a year ago. The shortage was discovered some time ago, and company officials said Little promised to make restitution. Since going to Grundy Center, the officers said, Little's payments have not been forthcoming.

Leaves Fortune for Educational Work

Ashtabula, Okla.—George W. Wright, president of the Ashtabula Gas Company, who died recently at his home in Mercer, Pa., left $40,000 to the nephews, nieces and other relatives.

The remainder of his fortune, about half a million, he has designated in his will shall be used as a trust fund to assist in educating worthy young men and young women.

Has New Relief Holder

Green Bay, Wis.—A 40,000 cu. ft. capacity relief holder has been put in service here by the Wisconsin Public Service Company. The holder has been demanded by local requirements for some time past and will be of great assistance in handling the increased load on this plant. The holder was fabricated and erected by the Western Gas Construction Company.

Takes Up Atlanta Gas Rate

Atlanta, Ga. — C. M. Candler, chairman of the Georgia Railroad Commission, who has been in Florida for several weeks, has returned to his Atlanta office and is considering the matter of the Atlanta gas rate wrangle in respect to the requests of numerous Atlanta people that the case be reopened. The company was recently granted an increase in rates to $1.00 per 1,000 cu. ft., the new rates going into effect on March 1.

It is reported that should the railroad commission undertake to again go into this case, in the absence of any new matter to be presented, the board will take the same position it took more than a year ago, to the effect that there must be a new appraisal and valuation of the gas company's properties, and that the work will have to be done by impartial experts to be employed by neither the city nor the company, but by the commission itself.

The State provides no funds for work of this nature, and the practice in the past has been that the two sides to a controversy pay their proportionate shares, and the city pay its cost of an audit and appraisal, to be made under the direct jurisdiction of the commission. Some time ago, when this plan was proposed by the commission the gas company agreed to it, and after a considerable wrangle the city disagreed because it could not obtain consent to engage the auditor to pass on the company's books, rather than permitting the work to be directed by the commissioner.

While no definite statement has been made, it is clearly intimated that if there is any further hearing in the Atlanta gas matter it will have to include an impartial and dependable valuable audit.

Natural Gas Increase Allowed

Dayton, Ohio.—Federal Judge J. E. Star, in a decision received here from Columbus, ruled that the petition of the Dayton Gas Consumers' League, which sought an injunction against the Dayton Gas Company and the local city officials in connection with an increase in the price of natural gas, does not merit consideration. Judge Sater ordered the plea withdrawn from court records. The court sustains the action of the City Commission in making a new contract with the Dayton Gas Company at prices raised from 34½ cents per 1,000 cu. ft. to a minimum of 50 cents per 1,000 ft. Judge Sater held further that the petitioner was not incorporated and could not bring the action.

Cut Gas Rates

Wilkes-Barre, Pa.—The Wilkes-Barre company controlled by the United Gas & Electric Corporation of New York, the holding company of the Harrisburg Light & Power Company, has reached a settlement with consumers by which $75,000 annually is cut from a protested tariff of rates.

The complainants were represented by the Harrisburg engineering firm of Selig & Wilson and by C. D. Coughlin, of Wilkes-Barre, attorney and Congressman-elect. E. E. Selig represented the local engineering firm in the Wilkes-Barre negotiations.